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 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  May 12   EXTEND option available in structure searching
 NEWS  4  May 12   Polymer links for the POLYLINK command completed in REGISTRY
 NEWS  5  May 27   New UPM (Update Code Maximum) field for more efficient patent
                   SDIs in CAplus
 NEWS  6  May 27   CAplus super roles and document types searchable in REGISTRY
 NEWS  7  Jun 28   Additional enzyme-catalyzed reactions added to CASREACT
 NEWS  8  Jun 28   ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG,
                   and WATER from CSA now available on STN(R)
 NEWS  9  Jul 12   BEILSTEIN enhanced with new display and select options,
                   resulting in a closer connection to BABS
 NEWS 10  Jul 30   BEILSTEIN on STN workshop to be held August 24 in conjunction
                   with the 228th ACS National Meeting
 NEWS 11  AUG 02   IFIPAT/IFIUDB/IFICDB reloaded with new search and display
                   fields
 NEWS 12  AUG 02   CAplus and CA patent records enhanced with European and Japan
                   Patent Office Classifications
 NEWS 13  AUG 02   STN User Update to be held August 22 in conjunction with the
                   228th ACS National Meeting
 NEWS 14  AUG 02   The Analysis Edition of STN Express with Discover!
                   (Version 7.01 for Windows) now available
 NEWS 15  AUG 04   Pricing for the Save Answers for SciFinder Wizard within
                   STN Express with Discover! will change September 1, 2004

 NEWS EXPRESS  JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 10:01:12 ON 17 AUG 2004

=> file caplus
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```
          10394 HSV
             37 HSVS
          10396 HSV
                   (HSV OR HSVS)
L6            0 HSV AND L4

=> virus and L4
         304117 VIRUS
          65224 VIRUSES
         315205 VIRUS
                   (VIRUS OR VIRUSES)
L7           59 VIRUS AND L4

=> HSV and L7
          10394 HSV
             37 HSVS
          10396 HSV
                   (HSV OR HSVS)
L8            0 HSV AND L7

=> plasmid and L4
         105031 PLASMID
          41772 PLASMIDS
         117613 PLASMID
                   (PLASMID OR PLASMIDS)
L9           46 PLASMID AND L4

=> cosmid and L4
           5420 COSMID
           1975 COSMIDS
           6308 COSMID
                   (COSMID OR COSMIDS)
L10           2 COSMID AND L4

=> viral (w) antigen and L7
         134025 VIRAL
              9 VIRALS
         134032 VIRAL
                   (VIRAL OR VIRALS)
         257429 ANTIGEN
         203183 ANTIGENS
         319362 ANTIGEN
                   (ANTIGEN OR ANTIGENS)
           3182 VIRAL (W) ANTIGEN
L11           0 VIRAL (W) ANTIGEN AND L7

=> HCV and L7
           8023 HCV
             17 HCVS
           8027 HCV
                   (HCV OR HCVS)
L12           1 HCV AND L7

=> HC and L9
          33562 HC
           1291 HCS
          34575 HC
                   (HC OR HCS)
L13           0 HC AND L9

=> HCV and L9
           8023 HCV
             17 HCVS
           8027 HCV
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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'CAPLUS' ENTERED AT 10:01:30 ON 17 AUG 2004
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FILE COVERS 1907 - 17 Aug 2004  VOL 141 ISS 8
FILE LAST UPDATED: 16 Aug 2004  (20040816/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> DNA (s) vaccine
        675191 DNA
         17221 DNAS
        677838 DNA
                 (DNA OR DNAS)
         44340 VACCINE
         45144 VACCINES
         55791 VACCINE
                 (VACCINE OR VACCINES)
L1        6407 DNA (S) VACCINE

=> carrier (s) particle
        240029 CARRIER
        132104 CARRIERS
        311888 CARRIER
                 (CARRIER OR CARRIERS)
        613766 PARTICLE
        693749 PARTICLES
       1040304 PARTICLE
                 (PARTICLE OR PARTICLES)
L2       11548 CARRIER (S) PARTICLE

=> L1 and L2
L3          23 L1 AND L2

=> vector and L2
        135129 VECTOR
         81011 VECTORS
        183077 VECTOR
                 (VECTOR OR VECTORS)
L4         123 VECTOR AND L2

=> herpes and L4
         22777 HERPES
L5           0 HERPES AND L4

=> HSV and L4
```

```
                (HCV OR HCVS)
L14           0 HCV AND L9

=> viral and L9
         134025 VIRAL
              9 VIRALS
         134032 VIRAL
                (VIRAL OR VIRALS)
L15          13 VIRAL AND L9

=> polymer and DNA (w) vaccine
         962498 POLYMER
         802914 POLYMERS
        1307526 POLYMER
                (POLYMER OR POLYMERS)
         675191 DNA
          17221 DNAS
         677838 DNA
                (DNA OR DNAS)
          44340 VACCINE
          45144 VACCINES
          55791 VACCINE
                (VACCINE OR VACCINES)
           3046 DNA (W) VACCINE
L16           41 POLYMER AND DNA (W) VACCINE

=> viral and L16
         134025 VIRAL
              9 VIRALS
         134032 VIRAL
                (VIRAL OR VIRALS)
L17           6 VIRAL AND L16

=> DIS L17 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 16.07 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L17  ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2004:589435  CAPLUS
DOCUMENT NUMBER:          141:122331
TITLE:                    Vaccine compositions containing phospholpid adjuvant
                          against infection and cancer
INVENTOR(S):              O'Hagan, Derek
PATENT ASSIGNEE(S):       Chiron Corporation, USA
SOURCE:                   PCT Int. Appl., 64 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.        DATE
     ---------------      ----   --------    --------------------   --------
     WO 2004060396         A2    20040722    WO 2003-US41412        20031229
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
             BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
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MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-436919P P 20021227
US 2003-513075P P 20031021

ABSTRACT:
Immunogenic compns. containing phospholipid adjuvants, including microparticle and emulsion compns. According to one aspect of the invention, an immunogenic microparticle composition is provided that comprises: water; a **polymer** microparticle comprising a biodegradable **polymer**, e.g., a ***polymer*** selected from a poly(α-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate; an antigen adsorbed to the microparticle; and a phospholipid compound, e.g., a synthetic phospholipid compound comprising: (i) one or more phosphoryl groups independently selected from a phosphato group and a phosphodiester group; (ii) a plurality of linear alkane groups. According to another aspect of the invention an immunogenic emulsion composition is provided that comprises: water; a metabolizable oil; an emulsifying agent; an antigen; and a phospholipid compound, e.g., a synthetic phospholipid compound like that above. The emulsion composition is an oil-in-water emulsion having oil and aqueous phases, in which the oil phase is in the form of oil droplets, substantially all of which are less than 1 μ in diameter The antigen is **viral**, bacterial, fungal, parasitic or neoplastic antigen.

L17 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:270033 CAPLUS
DOCUMENT NUMBER: 140:286153
TITLE: Vaccine stabilization by coating labile immunogen onto fluidized water soluble particles
INVENTOR(S): Wong, Tuen-Yee; So, Anthony Wai-Chiu; Ko, Thomas Sai-Ying
PATENT ASSIGNEE(S): Vital Biotech (Hong Kong) Limited, Peop. Rep. China
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026336	A1	20040401	WO 2003-AU1250	20030923

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AU 2002-951692 A 20020923

ABSTRACT:
Processes for the production of a stabilized vaccine composition of labile immunogens, wherein a fluid comprising one or more immunogens is sprayed into a reactor containing fluidized particles of a pharmaceutically acceptable water soluble material at a temperature of about 25 °C to about 50 °C, such that the immunogen coats and is dried onto the particles under the fluidizing conditions, and thereafter collecting from said reactor dried immunogen containing particles having

a moisture content between about 0.1 % weight/weight to about 10 % weight/weight are described. Also described are stabilized vaccine compns. of labile immunogens. The immunogen comprises virus particles, bacterial cells or other microorganisms, or antigenic products. The stabilized vaccine is a human vaccine or an animal vaccine such as poultry, porcine, avian, canine, feline or bovine vaccine.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:164683 CAPLUS
DOCUMENT NUMBER: 140:412078
TITLE: Molecularly engineered poly(ortho ester) microspheres for enhanced delivery of **DNA vaccines**
AUTHOR(S): Wang, Chun; Ge, Qing; Ting, David; Nguyen, David; Shen, Hui-Rong; Chen, Jianzhu; Eisen, Herman N.; Heller, Jorge; Langer, Robert; Putnam, David
CORPORATE SOURCE: Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Nature Materials (2004), 3(3), 190-196
CODEN: NMAACR; ISSN: 1476-1122
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Genetic vaccination using plasmid DNA presents a unique opportunity for achieving potent immune responses without the potential limitations of many conventional vaccines. Here we report the design of synthetic biodegradable ***polymers*** specifically for enhancing **DNA vaccine** efficacy in vivo. We molecularly engineered poly(ortho ester) microspheres that are non-toxic to cells, protect DNA from degradation, enable uptake by antigen-presenting cells, and release DNA rapidly in response to phagosomal pH. One type of microsphere of poly(ortho esters) that releases **DNA** ***vaccines*** in synchrony with the natural development of adaptive immunity, elicited distinct primary and secondary humoral and cellular immune responses in mice, and suppressed the growth of tumor cells bearing a model antigen. This **polymer** microparticulate system could, with further study, have implications for advancing the clin. utility of **DNA** ***vaccines*** as well as other nucleic-acid-based therapeutics against ***viral*** infections and cancer.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:816863 CAPLUS
DOCUMENT NUMBER: 135:370620
TITLE: Compositions and methods for inducing activation of dendritic cells
INVENTOR(S): Kabanov, Alexander V.; Lemieux, Pierre; Guerin, Nadia; Alakhov, Valery; Vinogradov, Serguie
PATENT ASSIGNEE(S): Supratek Pharma, Inc., Can.
SOURCE: PCT Int. Appl., 126 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001083698	A2	20011108	WO 2001-US13921	20010430

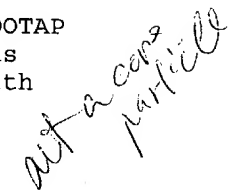
L9 ANSWER 37 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:764294 CAPLUS
DOCUMENT NUMBER: 130:20573
TITLE: Tissue factor for influencing blood vessel formation
INVENTOR(S): Nawroth, Peter; Nakagawa, Katsumi; Zhang, Youming
PATENT ASSIGNEE(S): Merckle G.m.b.H., Germany
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9851321	A1	19981119	WO 1998-DE1306	19980508
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19719652	A1	19981203	DE 1997-19719652	19970509
AU 9883315	A1	19981208	AU 1998-83315	19980508
AU 746782	B2	20020502		
EP 980251	A1	20000223	EP 1998-933500	19980508
EP 980251	B1	20020821		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
JP 2001527555	T2	20011225	JP 1998-548691	19980508
AT 222501	E	20020915	AT 1998-933500	19980508
PT 980251	T	20030131	PT 1998-933500	19980508
ES 2184299	T3	20030401	ES 1998-933500	19980508
CZ 293005	B6	20040114	CZ 1999-3912	19980508
NO 9905459	A	19991108	NO 1999-5459	19991108
MX 9910214	A	20000731	MX 1999-10214	19991108

PRIORITY APPLN. INFO.:

DE 1997-19719652	A	19970509
WO 1998-DE1278	A	19980507
WO 1998-DE1306	W	19980508

ABSTRACT:
Tissue factor can be used to influence, especially to activate, the formation of blood vessels, above all in wound healing. It may be administered in the form of a nucleic acid, a tissue factor fragment, a mutant amino acid sequence, a fusion protein, in glycosylated or nonglycosylated form, or as an antibody to inhibit blood vessel formation. Thus, the entire translated region of the mouse tissue factor gene was integrated into the BamHI site of the multiple-cloning site of pcDNA3 under the control of the cytomegalovirus promoter to produce expression **plasmid** pcDNA3-TF. Treatment of full-thickness wounds on the backs of mice with a mixture of pcDNA3-TF and DOTAP transfection reagent resulted in formation of blood vessels in the wounds, as shown by i.v. nigrosine injection and by staining for smooth muscle cells with an antibody to α-actin.



L9 ANSWER 36 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:58507 CAPLUS
DOCUMENT NUMBER: 130:181465
TITLE: Isoluble carrier-immobilized fusion protein antigen as immunological diagnostic agent
INVENTOR(S): Izumoto, Yoshitaka
PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11014627	A2	19990122	JP 1997-167111	19970624
PRIORITY APPLN. INFO.:			JP 1997-167111	19970624

ABSTRACT:
Fusion protein containing maltose-coupled Treponema surface antigen and glutathione-S-transferase is prepared by mol. cloning. The Treponema surface antigen is a 47 kDa antigenic protein, and is expressed by Escherichia coli transfected with **plasmid vector** pMAL-47K. The recombinant 47 kDa antigen is coated on insol. carrier for detecting anti-Treponema antibody in blood serum and for diagnosis of syphilis. The insol. ***carrier*** is latex **particle** of polystyrene, styrene-styrene sulfonic acid copolymer, or styrene-methacrylic acid copolymer.

L9 ANSWER 33 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:96730 CAPLUS
DOCUMENT NUMBER: 133:115674
TITLE: Transfection complexes generated with adenovirus and polyethylenimine-condensed DNA
AUTHOR(S): Cotten, Matt; Saltik, Mediyha; Baker, Adam
CORPORATE SOURCE: Institute for Molecular Pathology, Vienna, Austria
SOURCE: Methods in Molecular Medicine (1999), 21(Adenovirus Methods and Protocols), 295-307
CODEN: MMMEFN
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A simple method of linking **plasmid** DNA to **carrier** adenovirus **particles** is described. The method uses the synthetic polycation polyethylenimine (PEI) to condense the **plasmid** DNA into a small, pos. charged complex. In addition to describing the PEI **plasmid** DNA/virus linkage method, the preparation of psoralen-inactivated carrier adenovirus is also described. Furthermore, a simple method for removing LPS from ***plasmid*** DNA is provided.

WO 2001083698 A3 20020221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001074815	A5	20011112	AU 2001-74815		20010430
EP 1283727	A2	20030219	EP 2001-941463		20010430
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004509838	T2	20040402	JP 2001-580308		20010430
PRIORITY APPLN. INFO.:			US 2000-200487P	P	20000428
			US 2001-260806P	P	20010101
			WO 2001-US13921	W	20010430

ABSTRACT:
Compns. induce the activation of dendritic cells comprising a polynucleotide, such as viruses, RNA, DNA, plasmid DNA, or derivs. thereof and at least one block copolymer of alkylethers. The present invention further relates to compns. for inducing the activation of dendritic cells wherein the block copolymers are PLURONIC F127 and L61. More particularly, the compns. comprise block copolymers PLURONIC F127/PLURONIC L61. The invention also relates to methods of inducing the activation of dendritic cells in animals comprising administering the compns. of the invention. Addnl., the present invention relates to methods of increasing the immune response of animals comprising administering the compns. of the present invention.

L17 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:659270 CAPLUS
DOCUMENT NUMBER: 131:298650
TITLE: **Polymer** adjuvants for use with vector vaccines
INVENTOR(S): Audonnet, Jean-christophe Francis; Minke, Jules Maarten
PATENT ASSIGNEE(S): Merial, Fr.
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9951269	A1	19991014	WO 1999-FR666	19990322
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2776928	A1	19991008	FR 1998-4409	19980403
FR 2776928	B1	20000623		
CA 2327389	AA	19991014	CA 1999-2327389	19990322
AU 9928448	A1	19991025	AU 1999-28448	19990322
AU 744964	B2	20020307		
BR 9909342	A	20001212	BR 1999-9342	19990322

EP 1066055	A1	20010110	EP 1999-909069		19990322
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2002510651	T2	20020409	JP 2000-542039		19990322
PRIORITY APPLN. INFO.:			FR 1998-4409	A	19980403
			WO 1999-FR666	W	19990322

ABSTRACT:
Polymer adjuvants that increase the efficacy of vector vaccines carrying an expression cassette for an antigen gene of a pathogen are described. The **polymers** are acrylic or methacrylic **polymers** and the maleic anhydride copolymers and alkenyl derivative The adjuvant compound is preferably a carbomer or an EMA®. Construction of expression vectors for a number **viral** antigen genes were constructed using the com. expression vector pVR1012 is described. Inoculation of horses, swine, cattle, and dogs with these vectors with Carbopol 974P as an adjuvant is demonstrated. Use of the adjuvant led to the appearance of antibody to the antigens.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:361702 CAPLUS
DOCUMENT NUMBER: 126:326443
TITLE: Genetic vector expression system for vaccination of fish by immersion, injection, or spray and fish protection from **viral** and bacterial diseases
INVENTOR(S): Davis, Heather L.
PATENT ASSIGNEE(S): Ottawa Civic Hospital, Can.
SOURCE: Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 773295	A2	19970514	EP 1996-117859		19961107
EP 773295	A3	19990616			
R: DK, FI, FR, GB, SE					
US 5780448	A	19980714	US 1996-740805		19961104
CA 2189831	AA	19970508	CA 1996-2189831		19961107
NO 9604713	A	19970509	NO 1996-4713		19961107
JP 09295291	A2	19971104	JP 1996-295565		19961107
EP 839913	A2	19980506	EP 1997-119273		19971104
EP 839913	A3	19990616			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
US 6180614	B1	20010130	US 1998-115423		19980714
PRIORITY APPLN. INFO.:			US 1995-6290P	P	19951107
			US 1996-740805	A	19961104
			EP 1996-117859	A	19961107

ABSTRACT:
The present invention relates to methods of immunization of aquaculture species by introducing DNA expression systems into the aquaculture species. Such DNA expression systems preferably include DNA sequences encoding polypeptides of pathogens of species of aquaculture. The present invention also relates to methods of administration of DNA expression systems into aquaculture. Such methods include injection, spray, and immersion techniques. The methods of this invention are useful for prophylactic vaccination or therapeutic immunization of fin-fish, shellfish, or other aquatic animals against infectious diseases. Examples include plasmid vectors for expression of antigens such as G glycoprotein, N nucleoprotein VP2, VP3, or IROMP protein of ***viral*** hemorrhagic septicemia virus, infectious pancreatic necrosis

virus, or Aeromonas salmonicida.

=> DIS L15 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 34.81 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L15 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:412975 CAPLUS
DOCUMENT NUMBER: 140:422398
TITLE: Adjuvant acty of carrier proteins conjugated to antibodies against CD40 or CD28
INVENTOR(S): Heath, Andrew
PATENT ASSIGNEE(S): Adjuvantix Limited, UK
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041866	A1	20040521	WO 2003-GB4738	20031103

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2002-25736 A 20021105
ABSTRACT:
The author discloses an adjuvant comprising a conjugate of carrier and an antibody directed against CD28 or CD40. The adjuvant is used in a vaccine composition to immunize animals, typically but not exclusively, against T-cell independent antigens; the T-cell independent antigen itself comprising a conjugate with the above carrier. In one example, the carrier is tetanus toxoid.

L15 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:985322 CAPLUS
DOCUMENT NUMBER: 140:223062
TITLE: CNS gene transfer mediated by a novel controlled release system based on DNA complexes of degradable polycation PPE-EA: a comparison with polyethylenimine/DNA complexes
AUTHOR(S): Li, Y.; Wang, J.; Lee, C. G. L.; Wang, C. Y.; Gao, S. J.; Tang, G. P.; Ma, Y. X.; Yu, H.; Mao, H.-Q.; Leong, K. W.; Wang, S.
CORPORATE SOURCE: Institute of Bioengineering and Nanotechnology, Singapore, 117602, Singapore
SOURCE: Gene Therapy (2004), 11(1), 109-114
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English

ABSTRACT:
Nonviral gene delivery systems based upon polycation/**plasmid** DNA complexes are quickly gaining recognition as an alternative to **viral** gene **vectors** for their potential in avoiding immunogenicity and toxicity problems inherent in **viral** systems. We investigated in this study the feasibility of using a controlled release system based on DNA complexed with a recently developed polymeric gene carrier, poly(2-aminoethyl propylene phosphate) (PPE-EA), to achieve gene transfer in the brain. A unique feature of this gene delivery system is the biodegradability of PPE-EA, which can provide a sustained release of DNA at different rates depending on the charge ratio of the polymer to DNA. PPE-EA/DNA complexes, naked DNA, and DNA complexed with polyethylenimine (PEI), a nondegradable cationic polymer known to be an effective gene carrier, were injected intracisternally into the mouse cerebrospinal fluid. Transgene expression mediated by naked DNA was mainly detected in the brain stem, a region close to the injection site. With either PPE-EA or PEI as a carrier, higher levels of gene expression could be detected in the cerebral cortex, basal ganglia, and diencephalons. Transgene expression in the brain mediated by PPE-EA/DNA complexes at an N/P ratio of 2 persisted for at least 4 wk, with a significant higher level than that produced by either naked **plasmid** DNA or PEI/DNA at the 4-wk time point. Furthermore, PPE-EA displayed much lower toxicity in cultured neural cells as compared to PEI and did not cause detectable pathol. changes in the central nervous system (CNS). The results established the potential of PPE-EA as a new and biocompatible gene carrier to achieve sustained gene expression in the CNS.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:767017 CAPLUS
DOCUMENT NUMBER: 140:169496
TITLE: Multifunctional nanorods for gene delivery
AUTHOR(S): Salem, Aliasger K.; Searson, Peter C.; Leong, Kam W.
CORPORATE SOURCE: Department of Biomedical Engineering, Johns Hopkins School of Medicine, Baltimore, MD, 21205, USA
SOURCE: Nature Materials (2003), 2(10), 668-671
CODEN: NMAACR; ISSN: 1476-1122
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The goal of gene therapy is to introduce foreign genes into somatic cells to supplement defective genes or provide addnl. biol. functions, and can be achieved using either **viral** or synthetic non-**viral** delivery systems. Compared with **viral vectors**, synthetic gene-delivery systems, such as liposomes and polymers, offer several advantages including ease of production and reduced risk of cytotoxicity and immunogenicity, but their use has been limited by the relatively low transfection efficiency. This problem mainly stems from the difficulty in controlling their properties at the nanoscale. Synthetic inorg. gene **carriers** have received limited attention in the gene-therapy community, the only notable example being gold nanoparticles with surface-immobilized DNA applied to intradermal genetic immunization by **particle** bombardment. Here we present a non-***viral*** gene-delivery system based on multisegment bimetallic nanorods that can simultaneously bind compacted DNA **plasmids** and targeting ligands in a spatially defined manner. This approach allows precise control of composition, size and multifunctionality of the gene-delivery system. Transfection expts. performed in vitro and in vivo provide promising results that suggest potential in genetic vaccination applications.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:242184 CAPLUS
DOCUMENT NUMBER: 138:285995
TITLE: Packaging of immunostimulatory substances and antigens into virus-like particles for use as vaccines against cancer, autoimmune disease, allergy and **viral** infection
INVENTOR(S): Maurer, Patrick; Tissot, Alain; Schwarz, Katrin; Meijerink, Edwin; Lipowsky, Gerad; Pumpens, Paul; Cielens, Indulis; Renhofa, Regina; Bachmann, Martin F.; Storni, Tazio
PATENT ASSIGNEE(S): Cytos Biotechnology A.-G., Switz.
SOURCE: PCT Int. Appl., 322 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003024481	A2	20030327	WO 2002-IB4132		20020916
WO 2003024481	A3	20040603			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
US 2003099668	A1	20030529	US 2002-244065		20020916
PRIORITY APPLN. INFO.:			US 2001-318994P	P	20010914
			US 2002-374145P	P	20020422

ABSTRACT:
The invention relates to the finding that virus-like particles (VLPs) can be loaded with immunostimulatory substances, in particular with DNA oligonucleotides containing non-methylated C and G (CpGs). Such CpG-VLPs are dramatically more immunogenic than their CpG-free counterparts and induce enhanced B and T cell responses. The immune response against antigens optionally coupled, fused or attached otherwise to the VLPs is similarly enhanced as the immune response against the VLP itself. In addition, the T cell responses against both the VLPs and antigens are especially directed to the Th1 type.
Antigens attached to CpG-loaded VLPs may therefore be ideal vaccines for prophylactic or therapeutic vaccination against allergies, tumors and other self-mols. and chronic **viral** diseases.

L15 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:906493 CAPLUS
DOCUMENT NUMBER: 138:1072
TITLE: Replicons derived from Mengo virus genomes useful for the production of heterologous proteins in mammalian cells and uses as vaccines
INVENTOR(S): Escriou, Nicolas; Van Der Werf, Sylvie; Vignuzzi, Marco; Gerbaud, Sylvie
PATENT ASSIGNEE(S): Institut Pasteur, Fr.
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002095023	A2	20021128	WO 2002-IB2810	20020523
WO 2002095023	A3	20030508		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003077251	A1	20030424	US 2002-152040	20020522
EP 1390517	A2	20040225	EP 2002-743559	20020523
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:			
US 2001-292515P	P	20010523
WO 2002-IB2810	W	20020523

ABSTRACT:
The present invention relates to replicons or self-replicating RNA mols., derived from the genome of cardioviruses and aphtoviruses, which can be used to express heterologous proteins in animal cells. When injected in an animal host, for example in the form of naked RNA, these replicons permit the translation of the encoded heterologous protein. If the encoded heterologous protein is a foreign antigen, these replicons induce an immune response against the encoded heterologous protein. The invention uses cardiovirus and aphtovirus genomes to construct these replicons. The invention demonstrates that these replicons, when injected as naked RNA, can induce immune responses against a replicon-encoded heterologous protein in an animal recipient without the help of any kind of carrier or adjuvant.

L15 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2002:691729 CAPLUS
DOCUMENT NUMBER:	138:83870
TITLE:	A new pinpoint gene delivery system using genetically engineered hepatitis B virus envelope L particles
AUTHOR(S):	Kuroda, Syun'ichi; Okajima, Toshihide; Tanizawa, Katsuyuki
CORPORATE SOURCE:	Institute of Scientific and Industrial Research, Osaka University, Japan
SOURCE:	Materials Integration (2002), 15(7), 12-17 CODEN: MINTFB; ISSN: 1344-7858
PUBLISHER:	Ti, Ai, Shi
DOCUMENT TYPE:	Journal; General Review
LANGUAGE:	Japanese

ABSTRACT:
A review. Gene therapy is recognized as one of the most promising cures for cancer. Many attempts using virus **vectors** have been made for delivering genes to various cancer cells in human. While these gene therapies have shown noticeable efficacy, it has turned out that nonspecific introduction of genes into undesired cells and organs causes deleterious side effects. More importantly, the virus **vector**-derived DNA. may induce unexpected effects on human. Hepatitis B virus (HBV) is a human liver-specific DNA virus, whose genome harbors three overlapping envelope (env) genes in a single open reading frame, encoding S, M (pre-S2 + S), and L (pre-S1 + pre-S2 + S) proteins. In the last decade, the recombinant HBV env S and/or proteins were produced in yeast cells as particles and used as the immunogen for the new generation HB vaccines that were proven to be safely applicable to human.

Recently, the pre-S1 peptide of L protein was also shown to possess the specific receptor for human liver cells, which is crucial for the infectivity of HBV. We previously succeeded overprodn. of the HBV env L particles in yeast cells (up to 42% of the total soluble protein). In the present studies, the L particles have been purified, characterized, and examined for the applicability to the gene delivery system. By AFM observation and sedimentation equilibrium, about 110 mols. of L proteins are assembled into a lipid vesicle to form a spherical particle (500 nm in diameter). To examine the L **particles** as gene **carriers**, a mammalian expression **plasmid** for GFP (green fluorescence protein) was incorporated into L **particles** by electroporation. The L particles (1μg) containing 8 ng of the **plasmid** were added to the culture medium of human hepatoma HepG2 cells (about 1 + 105 cells). After two days, more than 90% of the HepG2 cells expressed GFP, while the control non-human liver cells did not. Then, the nude mice transplanted with human hepatoma HuH-7 cells and human colon cancer WiDr cells were injected i.p. with the L particles (10 μg) containing 2.5 μg of the ***plasmid.*** Two weeks later, the fluorescence was observed specifically in the HuH-7 cells, but neither in the WiDr cells nor in the liver, spleen, kidney, and intestine of the mice. Because the L particle is an empty vesicle containing no **viral** DNA, it can be used as a safe and efficient ***vector*** for human liver-specific gene transfer. We are now evaluating the effectiveness of L particles as the novel drug delivery system, together with the genetically engineered L particles that can be applied for the pinpoint gene/drug delivery system to different tissues.

L15 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2002:676926 CAPLUS
DOCUMENT NUMBER:	139:57747
TITLE:	New polyphosphoramidate with a spermidine side chain as a gene carrier
AUTHOR(S):	Wang, Jun; Zhang, Peng-Chi; Lu, Hong-Fang; Ma, Nan; Wang, Shu; Mao, Hai-Quan; Leong, Kam W.
CORPORATE SOURCE:	Tissue and Therapeutic Engineering Laboratory, Johns Hopkins Singapore Biomedical Centre, Singapore, 117597, Singapore
SOURCE:	Journal of Controlled Release (2002), 83(1), 157-168 CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER:	Elsevier Science Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:

A new cationic polymer (PPA-SP), polyphosphoramidate bearing spermidine side chain, was prepared as a non-**viral vector** for gene delivery. PPA-SP was synthesized from poly(1,2-propylene H-phosphonate) by the Atherton-Todd reaction. The weight average mol. weight of PPA-SP was 3.44+104 with a number average d.p. of 90, as determined by GPC/LS/RI method. The average net pos. charge per polymer chain was 102. PPA-SP was able to condense **plasmid** DNA efficiently and formed complexes at an N/P ratio (free amino groups in polymer to phosphate groups in DNA) of 2 and above, as determined by agarose gel electrophoresis. This new gene carrier offered significant protection to DNA against nuclease degradation at N/P ratios above 2, and showed lower cytotoxicity than PLL and PEI in cell culture. The LD50 of PPA-SP was 85 μg/mL in COS-7 cells, in contrast to 20 and 42 μg/mL for PLL and PEI, resp. The complexes prepared in saline at N/P ratios of 5.apprx.10 had an average size of 250 nm and zeta-potential of 26 mV. PPA-SP mediated efficient gene transfection in a number of cell lines, and the transfection protocol was optimized in HEK293 cells using a luciferase **plasmid** as a marker gene. Gene expression mediated by PPA-SP was greatly enhanced when chloroquine was used in conjunction at a concentration of 100 μM. Under the optimized condition, PPA-SP/DNA complexes yield a luciferase expression level closed to PEI/DNA complexes or Transfast mediated transfection. In a non-invasive CNS gene delivery model, PPA-SP/DNA complexes yielded comparable bcl-2 expression as PEI/DNA complexes

in mouse brain stem following injection of the complexes in the tongue.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:251844 CAPLUS
DOCUMENT NUMBER: 136:284439
TITLE: Stereocomplex polymeric carriers for drug delivery
INVENTOR(S): Domb, Abraham J.; Zehavi, Zeev
PATENT ASSIGNEE(S): Efrat Biopolymers Ltd., Israel
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6365173	B1	20020402	US 1999-231552	19990114
PRIORITY APPLN. INFO.:			US 1999-231552	19990114

ABSTRACT:
A polymeric carrier for delivery of bioactive or bioreactive mols. is provided, including a stereocomplex of one or more biocompatible polymers and having incorporated on or within the complex the mols. to be delivered. In a preferred embodiment, the biocompatible stereoselective polymers are linear or branched D-PLA homo- and block-polymers, linear or branched L-PLA homo- and block-polymers, copolymers thereof, or mixts. thereof, in stereo-complexed form. In one preferred embodiment, the polymeric carrier is complexed with a complementary stereospecific bioactive mol. In other embodiments, the bioactive, or bioreactive (for example, for use in diagnostic applications), is bound to the complex by ionic, hydrogen, or other non-covalent binding reactions not involving stereocomplexation, or is phys. entrapped within the complex, either at the time of complex formation or when the polymeric material is formulated into particles, tablets, or other form for pharmaceutical application. Exemplary bioactive mols. include peptides, proteins, nucleotides, oligonucleotides, sugars, carbohydrates, and other synthetic or natural organic mols., as well as stereoselective drugs of a mol. weight of 300 daltons or higher. Examples demonstrate preparation of stereocomplexes, as well as their use for controlled and/or sustained release. Thus, disk (102 mm) and rod shape (410 mm) devices were prepared by mixing the stereocomplex powder of D-PLA and L-PLA (200 mg, Mw = 30,000) with lidocaine (20 mg) and compression molding into disks of 142 mm size. Lidocaine was released constantly for 30 days when placed in buffer solution pH 7.4 at 37°.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:676624 CAPLUS
DOCUMENT NUMBER: 135:247186
TITLE: DNA vaccines against poxviruses
INVENTOR(S): Hooper, Jay W.; Schmaljohn, Alan L.; Schmaljohn, Connie S.
PATENT ASSIGNEE(S): U.S. Army Medical Research Institute of Infectious Diseases, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001066138	A2	20010913	WO 2001-US7391	20010307
WO 2001066138	A3	20020314		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002176871	A1	20021128	US 2001-800632	20010307
US 6562376	B2	20030513		

PRIORITY APPLN. INFO.: US 2000-187608P P 20000307

ABSTRACT:
A poxvirus naked DNA vaccine which protects animals against poxvirus challenge comprising nucleic acids encoding an intracellular mature virion (IMV) and nucleic acids encoding an extracellular enveloped virion (EEV) of poxvirus is described. Poxvirus is chosen from the group consisting of variola virus, monkeypox virus, cowpox virus, orf virus, paravaccinia virus, Tana pox virus, Yaba pox virus, and Molluscum contagiosum virus. Methods of use of the vaccine and its advantages are described. For example, in mice DNA vaccination with VACV IMV immunogens L1R or A27L elicited neutralizing antibodies while DNA vaccination with VACV EEV immunogens A33R and B5R elicited non-neutralizing antibodies. DNA vaccination with L1R+A27L+A33R+B5R completely protected mice from challenge, and the lack of weight loss indicates low morbidity.

L15 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	1998:369669 CAPLUS
DOCUMENT NUMBER:	129:113375
TITLE:	A physicochemical approach for predicting the effectiveness of peptide-based gene delivery systems for use in **plasmid**-based gene therapy
AUTHOR(S):	Duguid, John G.; Li, Cynthia; Shi, Mei; Logan, Mark J.; Alila, Hector; Rolland, Alain; Tomlinson, Eric; Sparrow, James T.; Smith, Louis C.
CORPORATE SOURCE:	GeneMedicine, The Woodlands, TX, 77381-4248, USA
SOURCE:	Biophysical Journal (1998), 74(6), 2802-2814 CODEN: BIOJAU; ISSN: 0006-3495
PUBLISHER:	Biophysical Society
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:
Novel synthetic peptides, based on carrier peptide analogs (YKAKnWK) and an amphipathic peptide (GLFEALLELLESLWELLLEA), have been formulated with DNA ***plasmids*** to create peptide-based gene delivery systems. The carrier peptides are used to condense **plasmids** into nanoparticles with a hydrodynamic diameter (DH) ranging from 40 to 200 nm, which are sterically stable for over 100 h. Size and morphol. of the carrier peptide/**plasmid** complex have been determined by photon correlation spectroscopy (PCS) and transmission electron microscopy (TEM), resp. The amphipathic peptide is used as a pH-sensitive lytic agent to facilitate release of the **plasmid** from endosomes after endocytosis of the peptide/**plasmid** complex. Hemolysis assays have shown that the amphipathic peptide destabilizes lipid bilayers at low pH, mimicking the properties of **viral** fusogenic peptides. However, CD studies show that unlike the **viral** fusion peptides, this amphipathic peptide loses some of its α-helical structure at low pH in the presence of liposomes. The peptide-based gene delivery systems were tested for transfection efficiency in a variety of cell lines, including 14-day C2C12 mouse myotubes, using gene expression systems containing the β-galactosidase reporter gene. Transfection data demonstrate a correlation between in vitro transfection efficiency and the combination of

several phys. properties of the peptide/**plasmid** complexes, including 1) DNA dose, 2) the zeta potential of the **particle**, 3) the requirement of both lytic and **carrier** peptides, and 4) the number of lysine residues associated with the **carrier** peptide. Transfection data on 14-day C2C12 myotubes utilizing the therapeutic human growth hormone gene formulated in an optimal peptide gene delivery system show an increase in gene expression over time, with a maximum in protein levels at 96 h (.apprx.18 ng/mL).

REFERENCE COUNT: 89 THERE ARE 89 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:502949 CAPLUS
DOCUMENT NUMBER: 127:200710
TITLE: Polyethylenimine (PEI) is a simple, inexpensive and effective reagent for condensing and linking **plasmid** DNA to adenovirus for gene delivery
AUTHOR(S): Baker, A.; Saltik, M.; Lehrmann, H.; Killisch, I.; Mautner, V.; Lamm, G.; Christofori, G.; Cotten, M.
CORPORATE SOURCE: Institute of Molecular Pathology, Vienna, 1030, Austria
SOURCE: Gene Therapy (1997), 4(8), 773-782
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Stockton
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A simple and inexpensive method of condensing and linking **plasmid** DNA to **carrier** adenovirus **particles** is described. The synthetic polycation polyethylenimine is used to condense **plasmid** DNA into pos. charged 100 nm complexes. These PEI-DNA complexes are then bound to adenovirus particles through charge interactions with neg. domains on the ***viral*** hexon. The resulting transfection complexes delivery ***plasmid*** DNA to cells by the adenovirus infectious route without interference from virus gene expression because psoralen-inactivated virus is employed. The PEI-DNA-adenovirus complexes display DNA delivery comparable to more sophositicated DNA virus complexes employing streptavidin/biotin linkage, but require no special reagents and are much easier to prepare

L15 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:466049 CAPLUS
DOCUMENT NUMBER: 103:66049
TITLE: Cloning of the structural gene for hepatitis B virus surface antigen into a yeast **vector**
AUTHOR(S): Kim, K. T.; Song, K. B.; Choi, Y. C.; Rhee, S. K.; Han, M. H.
CORPORATE SOURCE: Genet. Eng. Res. Cent., KAIST, Seoul, S. Korea
SOURCE: Han'guk Saenghwa Hakhoechi (1985), 18(2), 122-8
CODEN: KBCJAK; ISSN: 0368-4881
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The structural gene of hepatitis B virus surface antigen (HBsAg) was cloned into a shuttle **vector** pAAR 6 which is capable of autonomous replication and selection in both the yeast Saccharomyces cerevisiae and Escherichia coli. This expression **vector** employs the 5'-flanking region of the ADC I gene as a promoter for transcription of **viral** surface antigen-coding sequences. After transformation of the recombinant ***plasmid*** into yeast strains such as SHY 3, YNN 27, D 13, ATCC 38517 and ATCC 42677, expression of HBsAg gene in the host cells was observed The protein synthesized in yeast cells was similar in size, d., and shape to the 22 nm ***particles*** isolated from the plasma of human hepatitis **carriers**
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L15 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:66425 CAPLUS
DOCUMENT NUMBER: 98:66425
TITLE: Expression of hepatitis B virus surface antigen gene in cultured cells by using recombinant **plasmid vectors**
AUTHOR(S): Siddiqui, Aleem
CORPORATE SOURCE: Sch. Med., Univ. Colorado, Denver, CO, 80262, USA
SOURCE: Molecular and Cellular Biology (1983), 3(1), 143-6
CODEN: MCEBD4; ISSN: 0270-7306
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The expression of the gene coding for hepatitis B surface antigen was studied with a new host-**vector** system. A subgenomic fragment of cloned hepatitis B **viral** DNA was inserted into the **plasmid** ***vector*** pSV010. Transfection of COS cells with the recombinant ***plasmid*** **vector** containing hepatitis sequences led to the synthesis of hepatitis B surface antigen, which was released into the culture medium in the form of 22-nm **particles** similar to those found in the sera of hepatitis **carriers**.

=> DIS L12 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.68 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:51528 CAPLUS
DOCUMENT NUMBER: 124:142854
TITLE: Hepatitis B **virus** core **particles** as epitope **carriers**
AUTHOR(S): Pumpens, P.; Borisova, G. P.; Crowther, R. A.; Grens, E.
CORPORATE SOURCE: Biomedical Res. Study Centre, Univ. Latvia, Riga, Latvia
SOURCE: Intervirology (1995), 38(1-2), 63-74
CODEN: IVRYAK; ISSN: 0300-5526
PUBLISHER: Karger
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review, with 84 refs. HBV core (HBc) **particle** is one of the most intensively studied particulate **carriers** for the insertion of foreign peptide sequences. Recombinant HBc protein expressed from the cloned gene undergoes the correct folding in a large variety of bacterial, yeast, insect and mammalian cells. Unique assembly properties and shape of 30/34-nm HBc particles allow substantial insertions into their primary structure without loss of their capsid-forming ability. N- and C-terminal regions, as well as the immunodominant loop in the middle of the mol. are widely accepted as targets for the introduction of foreign epitopes, ensuring retention and even enhancement of the original immunol. activity of inserted sequences. Special sets of display **vectors** have been constructed on the basis of the cloned HBc gene. Epitope sequences of viral (BLV, FeLV, FMDV, HBV, **HCV** HIV-1, HRV2, MCMV, PV-1, SIV) and nonviral (human chorionic gonadotropin) origin have been studied as model display moieties.

=> DIS L10 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):Y

THE ESTIMATED COST FOR THIS REQUEST IS 5.36 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L10 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:386803 CAPLUS
DOCUMENT NUMBER: 129:92467
TITLE: Correlation of acidic and basic carrier ampholyte and immobilized pH gradient two-dimensional gel electrophoresis patterns based on mass spectrometric protein identification
AUTHOR(S): Nawrocki, Arkadiusz; Larsen, Martin R.; Podtelejnikov, Alexandre; Jensen, Ole N.; Mann, Matthias; Roepstorff, Peter; Goerg, Angelika; Fey, Stephen J.; Larsen, Peter Mose
CORPORATE SOURCE: Center Proteome Analysis Life Sciences, International Science Park Odense, Odense, DK-5230, Den.
SOURCE: Electrophoresis (1998), 19(6), 1024-1035
CODEN: ELCTDN; ISSN: 0173-0835
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Separation of proteins on either carrier ampholyte-based or immobilized pH gradient-based two-dimensional (2-D) gels gives rise to electrophoretic patterns that are difficult to compare visually. In this paper we have used matrix-assisted laser desorption/ionization mass spectrometry (MALDI-MS) to determine the identities of 335 protein spots in these two 2-D gel systems, including a substantial number of basic proteins which had never been identified before. Proteins that were identified in both gel systems allowed us to cross-reference the gel patterns. **Vector** anal. of these cross-refs. demonstrated that there is no obvious pattern by which the mobility of a protein in one gel system can be used to predict its mobility in the other. Thus, as labs. adopt the immobilized pH gradient-based 2-D gel systems, the only reliable means of translating the data gained with the carrier ampholyte-based gel system is to pos. identify the proteins in both 2-D systems.

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:208677 CAPLUS
DOCUMENT NUMBER: 116:208677
TITLE: Direct use of λ phage particles for DNA transfection
AUTHOR(S): Ishiura, Masahiro
CORPORATE SOURCE: Natl. Inst. Basic Biol., Okazaki, Japan
SOURCE: Methods in Molecular Biology (Totowa, NJ, United States) (1991), 7(Gene Transfer Expression Protocols), 63-80
CODEN: MMBIED; ISSN: 1064-3745
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review with 29 refs. describing an efficient procedure for transferring mammalian genes that have been cloned in a λ phage **vector** or in a **cosmid vector**. In this procedure, λ phage particles that contain recombinant phage DNA or recombinant **cosmid** DNA are copptd. with calcium phosphate and applied to recipient cells. It is not necessary to extract and purify DNA from recombinant phages. Once isolated, phage particles that harbor a specific gene are directly transferred into the cells. The efficiency of gene transfer (namely, the number of transformant colonies/λ phage **particle**/106 recipient cells) by this procedure is very high (10-5), using small amts. of phage **particles** without addnl. **carrier** DNA. Furthermore, once established, the transformed cells obtained by the procedure are extremely stable in the absence

of selective drugs. Therefore, this procedure is particularly attractive in obtaining stably transformed cells that carry low copy nos. of a transferred gene with long flanking sequences without addnl. carrier DNA sequences.

=> DIS L3 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 23 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 61.58 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:371830 CAPLUS
TITLE: Synthesis of nanosized chitosan-poly(acrylic acid) particles by a dropping method
AUTHOR(S): Chang, Tao-Chih; Wang, Jian-Wen; Hon, Min-Hsiung
CORPORATE SOURCE: Department of Materials Science and Engineering, National Cheng Kung University, Tainan, 70101, Taiwan
SOURCE: Macromolecular Bioscience (2004), 4(4), 416-420
CODEN: MBAIBU; ISSN: 1616-5187
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:

DNA (**DNA**) **vaccines** are being investigated extensively because of their excellent potential over conventional protein ones. A suitable DNA **carrier**, consisting of uniformly dispersed chitosan-poly(acrylic acid) **particles** with an average size of 30 nm, was successfully synthesized by a dropping method with a ratio of chitosan solution to poly(acrylic acid) solution of 1:1 and was incubated in a buffer solution with a pH value of 3.0. The particle size increased from 35.76 to 45.90 nm when the pH value of the buffer solution was increased from 3.0 to 7.4. After freeze-drying, the non-incubated mixed solution showed a membranous morphol. A powdered product was formed from the mixed solution as incubated in buffer solution with pH values of 3.0 and 5.3. However, when the mixed solution was incubated in a buffer solution of pH 7.4, a mixture of membrane and powder was obtained.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:270033 CAPLUS
DOCUMENT NUMBER: 140:286153
TITLE: Vaccine stabilization by coating labile immunogen onto fluidized water soluble particles
INVENTOR(S): Wong, Tuen-Yee; So, Anthony Wai-Chiu; Ko, Thomas Sai-Ying
PATENT ASSIGNEE(S): Vital Biotech (Hong Kong) Limited, Peop. Rep. China
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026336	A1	20040401	WO 2003-AU1250	20030923

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AU 2002-951692 A 20020923

ABSTRACT:
Processes for the production of a stabilized vaccine composition of labile immunogens,
wherein a fluid comprising one or more immunogens is sprayed into a reactor containing fluidized particles of a pharmaceutically acceptable water soluble material
at a temperature of about 25 °C to about 50 °C, such that the immunogen coats and is dried onto the particles under the fluidizing conditions, and thereafter collecting from said reactor dried immunogen containing particles having a moisture content between about 0.1 % weight/weight to about 10 % weight/weight are described. Also described are stabilized vaccine compns. of labile immunogens. The immunogen comprises virus particles, bacterial cells or other microorganisms, or antigenic products. The stabilized vaccine is a human vaccine or an animal vaccine such as poultry, porcine, avian, canine, feline or bovine vaccine.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:162606 CAPLUS
DOCUMENT NUMBER: 140:216161
TITLE: Vaccine compositions containing amyloid β1-6 antigen epitopes conjugated with virus-like particles
INVENTOR(S): Bachmann, Martin F.; Tissot, Alain; Ortmann, Rainer; Lueoend, Rainer; Staufenbiel, Matthias; Frey, Peter
PATENT ASSIGNEE(S): Cytos Biotechnology Ag, Switz.; Novartis Pharma Ag
SOURCE: PCT Int. Appl., 184 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004016282	A1	20040226	WO 2003-EP7864	20030718
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004141984	A1	20040722	US 2003-622087	20030718

PRIORITY APPLN. INFO.: US 2002-396639P P 20020719
US 2003-470432P P 20030515

ABSTRACT:
The present invention is related to the fields of mol. biol., virol., immunol. and medicine. The invention provides a composition comprising an ordered and repetitive antigen or antigenic determinant array, and in particular an Aβ1-6 peptide-VLP-composition More specifically, the invention provides a composition comprising a virus-like particle and at least one Aβ 1-6 peptide

bound thereto. The invention also provides a process for producing the conjugates and the ordered and repetitive arrays, resp. The compns. of the invention are useful in the production of vaccines for the treatment of Alzheimer's disease and as a pharmaccine to prevent or cure Alzheimer's disease and to efficiently induce immune responses, in particular antibody responses. Furthermore, the compns. of the invention are particularly useful to efficiently induce self-specific immune responses within the indicated context.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:2727 CAPLUS
DOCUMENT NUMBER: 140:75940
TITLE: Unmethylated CpG oligonucleotide-packaged virus-like particles for enhancing immune response of vaccines
INVENTOR(S): Bachman, Martin F.; Renner, Wolfgang A.
PATENT ASSIGNEE(S): Cytos Biotechnology Ag, Switz.
SOURCE: PCT Int. Appl., 252 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000351	A1	20031231	WO 2003-EP6541	20030620
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004005338	A1	20040108	US 2003-465811	20030620
PRIORITY APPLN. INFO.:			US 2002-389898P P	20020620

ABSTRACT:
The invention relates to the finding that virus like particles (VLPs) can be loaded and packaged with DNA oligonucleotides rich in non-methylated C and G (CpGs). If such CpG-VLPs are mixed with antigens, the immunogenicity of these antigens are dramatically enhanced. In addition, the T cell responses against the antigens are especially directed to the Th1 type. Surprisingly, no covalent linkage of the antigen to the VLP is required; it is sufficient to simply mix the VLPs with the adjuvants for co-administration. In addition, it was found that VLPs did not enhance immune responses unless they were loaded and packaged, resp., with CpGs. Antigens mixed with CpG-packaged VLPs may therefore be ideal vaccines for prophylactic or therapeutic vaccination against allergies, tumors and other self- mols. and chronic viral diseases.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:837364 CAPLUS
DOCUMENT NUMBER: 139:349644
TITLE: Particle-bound HIV-1 envelope glycoproteins as vaccine against HIV infection or AIDS
INVENTOR(S): Olson, William C.; Schulke, Norbert; Gardner, Jason; Maddon, Paul J.

PATENT ASSIGNEE(S): Progenics Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 200 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003087757	A2	20031023	WO 2002-US28332	20020906
WO 2003087757	A3	20040701		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-370410P P 20020405
ABSTRACT:
This invention provides a first composition comprising a pharmaceutically acceptable particle and a stable HIV-1 prefusion envelope glycoprotein trimeric complex operably affixed thereto. This invention further provides a second composition comprising (a) a pharmaceutically acceptable particle, (b) an antigen, and (c) an agent which is operably affixed to the particle and is specifically bound to the antigen, whereby the antigen is operably bound to the particle. Finally, this invention provides related nucleic acids, vectors, cells, compns., production methods, and prophylactic and therapeutic methods.

L3 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:656891 CAPLUS
DOCUMENT NUMBER: 139:202455
TITLE: Optimization of gene sequences of virus-like particles for expression in insect cells and uses as antiviral vaccine
INVENTOR(S): Robinson, Robin A.
PATENT ASSIGNEE(S): Novavax, Inc., USA
SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068933	A2	20030821	WO 2003-US4480	20030214
WO 2003068933	A3	20040311		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,

ML, MR, NE, SN, TD, TG

US 2003228696	A1	20031211	US 2003-367095		20030214
US 2004063188	A1	20040401	US 2003-368046		20030214
US 2004121465	A1	20040624	US 2003-367367		20030214
PRIORITY APPLN. INFO.:			US 2002-356113P	P	20020214
			US 2002-356118P	P	20020214
			US 2002-356119P	P	20020214
			US 2002-356123P	P	20020214
			US 2002-356126P	P	20020214
			US 2002-356133P	P	20020214
			US 2002-356135P	P	20020214
			US 2002-356150P	P	20020214
			US 2002-356151P	P	20020214
			US 2002-356152P	P	20020214
			US 2002-356154P	P	20020214
			US 2002-356156P	P	20020214
			US 2002-356157P	P	20020214
			US 2002-356161P	P	20020214
			US 2002-356162P	P	20020214

ABSTRACT:
The present invention provides codon optimized polynucleotides for optimal expression of recombinant proteins in eukaryotic cells and their uses as a vaccine. The codon optimized polynucleotides encode a viral capsid protein that self assembles into a virus-like particle. The virus-like particle is expressed extracellularly and exhibits conformational antigenic epitopes capable of raising neutralizing antibodies. Pharmaceutical compns., vaccines, and diagnostic test kits containing the gene products of the codon-optimized polynucleotides are also provided.

L3 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2003:376882 CAPLUS
DOCUMENT NUMBER:	138:384142
TITLE:	Antigen arrays comprising virus like particle-conjugated antigenic determinants of IL-5, IL-13 and eotaxin for use as vaccines against allergic eosinophilic diseases
INVENTOR(S):	Bachmann, Martin; Jennings, Gary; Sonderegger, Ivo
PATENT ASSIGNEE(S):	Cytos Biotechnology AG, Switz.
SOURCE:	PCT Int. Appl., 245 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	9

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003040164	A2	20030515	WO 2002-EP12455	20021107
WO 2003040164	A3	20031023		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003175290	A1	20030918	US 2002-50902	20020118
WO 2002056905	A2	20020725	WO 2002-IB166	20020121
WO 2002056905	A3	20031009		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1443960 A2 20040811 EP 2002-802656 20021107
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.:
US 2001-331045P P 20011107
US 2002-50902 A 20020118
WO 2002-IB166 A 20020121
US 2002-396636P P 20020719
US 2001-262379P P 20010119
US 2001-288549P P 20010504
US 2001-326998P P 20011005
WO 2002-EP12455 W 20021107

ABSTRACT:
The present invention is related to the fields of mol. biol., virol., immunol. and medicine. The invention provides a composition comprising an ordered and repetitive antigen or antigenic determinant array, and in particular an array comprising a protein or peptide of IL-5, IL-13 or eotaxin. More specifically, the invention provides a composition comprising a virus-like particle (VLP) and at least one protein, or peptide of IL-5, IL-13 and/or eotaxin bound thereto. The invention also provides a process for producing the conjugates and the ordered and repetitive arrays, resp. The compns. of the invention are useful in the production of vaccines for the treatment of allergic diseases with an eosinophilic component and as a pharmaccine to prevent or cure allergic diseases with an eosinophilic component and to efficiently induce immune responses, in particular antibody responses. Furthermore, the compns. of the invention are particularly useful to efficiently induce self-specific immune responses within the indicated context.

L3 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:242184 CAPLUS
DOCUMENT NUMBER: 138:285995
TITLE: Packaging of immunostimulatory substances and antigens into virus-like particles for use as vaccines against cancer, autoimmune disease, allergy and viral infection
INVENTOR(S): Maurer, Patrick; Tissot, Alain; Schwarz, Katrin; Meijerink, Edwin; Lipowsky, Gerad; Pumpens, Paul; Cielens, Indulis; Renhofa, Regina; Bachmann, Martin F.; Storni, Tazio
PATENT ASSIGNEE(S): Cytos Biotechnology A.-G., Switz.
SOURCE: PCT Int. Appl., 322 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003024481	A2	20030327	WO 2002-IB4132	20020916
WO 2003024481	A3	20040603		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003099668	A1	20030529	US 2002-244065	20020916
PRIORITY APPLN. INFO.:			US 2001-318994P	P 20010914
			US 2002-374145P	P 20020422

ABSTRACT:
The invention relates to the finding that virus-like particles (VLPs) can be loaded with immunostimulatory substances, in particular with DNA oligonucleotides containing non-methylated C and G (CpGs). Such CpG-VLPs are dramatically more immunogenic than their CpG-free counterparts and induce enhanced B and T cell responses. The immune response against antigens optionally coupled, fused or attached otherwise to the VLPs is similarly enhanced as the immune response against the VLP itself. In addition, the T cell responses against both the VLPs and antigens are especially directed to the Th1 type.
Antigens attached to CpG-loaded VLPs may therefore be ideal vaccines for prophylactic or therapeutic vaccination against allergies, tumors and other self-mols. and chronic viral diseases.

L3 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2002:906493 CAPLUS
DOCUMENT NUMBER:	138:1072
TITLE:	Replicons derived from Mengo virus genomes useful for the production of heterologous proteins in mammalian cells and uses as vaccines
INVENTOR(S):	Escriou, Nicolas; Van Der Werf, Sylvie; Vignuzzi, Marco; Gerbaud, Sylvie
PATENT ASSIGNEE(S):	Institut Pasteur, Fr.
SOURCE:	PCT Int. Appl., 76 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002095023	A2	20021128	WO 2002-IB2810	20020523
WO 2002095023	A3	20030508		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003077251	A1	20030424	US 2002-152040	20020522
EP 1390517	A2	20040225	EP 2002-743559	20020523

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:	US 2001-292515P	P	20010523
	WO 2002-IB2810	W	20020523

ABSTRACT:
The present invention relates to replicons or self-replicating RNA mols.,

derived from the genome of cardioviruses and aphtoviruses, which can be used to express heterologous proteins in animal cells. When injected in an animal host, for example in the form of naked RNA, these replicons permit the translation of the encoded heterologous protein. If the encoded heterologous protein is a foreign antigen, these replicons induce an immune response against the encoded heterologous protein. The invention uses cardiovirus and aphtovirus genomes to construct these replicons. The invention demonstrates that these replicons, when injected as naked RNA, can induce immune responses against a replicon-encoded heterologous protein in an animal recipient without the help of any kind of carrier or adjuvant.

L3 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:809081 CAPLUS
DOCUMENT NUMBER: 139:26411
TITLE: Virus-like particles containing cytokine plasmid DNA
AUTHOR(S): Oh, Yu-Kyoung; Son, Tae-Jong; Sin, Kwang-Sook; Kang, Min-Jeong; Kim, Jung Mogg; Kim, Nam Keun; Ko, Jung Jae; Kim, Chong-Kook
CORPORATE SOURCE: College of Medicine, Pochon CHA University, Pochon, Kyonggi-do, 487-800, S. Korea
SOURCE: Yakche Hakhoechi (2001), 31(3), 185-190
CODEN: YAHAEX; ISSN: 0259-2347
PUBLISHER: Korean Society of Pharmaceutics
DOCUMENT TYPE: Journal
LANGUAGE: Korean
ABSTRACT:
Human papillomavirus (HPV) infection is known to cause cervical cancers. Human papillomavirus-like particles (VLP) have been studied as preventive vaccines of cervical cancers. To develop VLP as a therapeutic gene **carrier**, we studied the method to encapsulate cytokine genes in virus-like ***particles.*** HPV type 16 capsid L1 genes were amplified by polymerase chain reaction and cloned into T vector. L1 gene was then inserted into baculovirus transfer vector. The clone of baculovirus encoding L1 gene was isolated and used to express L1 protein in Sf 21 insect cells. VLP were purified by CsCl d. gradient and ultracentrifugation. VLP were disassembled to capsomer units by treatment of a reducing agent. Given that interleukin-2 (IL-2) genes have been used in anticancer gene therapy and as a mol. adjuvant, IL-2 cytokine plasmids were chosen as a model gene. IL-2 plasmids were incubated with the disassembled capsomer suspension. To reassemble the particles, the mixture of capsomers and cytokine plasmids was dialyzed. The disassembly and reassembly of VLP were confirmed by transmission electron microscopy. The entrapment of cytokine plasmids in reassembled VLP was tested by the stability of plasmids against DNase I. After treatment of reassembled virus-like particles with DNase I, discrete IL-2 DNA band was observed Our results indicate that IL-2 cytokine plasmid (3.5 kb size) can be encapsulated in the virus-like particles, suggesting the potential of VLP as a gene delivery system. Moreover, VLP containing the adjuvant cytokine plasmids might function as more effective subunit vaccines.

L3 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:681665 CAPLUS
DOCUMENT NUMBER: 138:373929
TITLE: Heat shock protein micro-encapsulation as a double tool for the improvement of new generation vaccines
AUTHOR(S): Bueno Da Costa, Maria Helena; Quintilio, Wagner; Tanizaki, Martha Massako; Sant'Anna, Osvaldo Augusto; Schwendener, Reto Albert; de Araujo, Pedro Soares
CORPORATE SOURCE: Laboratorio de Imunogenetica, Sao Paulo, 05505-900, Brazil
SOURCE: Journal of Liposome Research (2002), 12(1 & 2), 29-35
CODEN: JLREE7; ISSN: 0898-2104
PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Modern **vaccines** encompass recombinant **DNA** technol., protein and carbohydrate chemical to obtain safe molecularly defined **vaccines**. Nevertheless most of the vaccines are poorly immunogenic because a large number of antigens are membrane proteins and consequently they are not present in their active conformation in the vaccine. Others are not as potent because they contain only B epitopes and therefore, cannot stimulate cellular memory. We have been studying the characteristics of the recombinant heat shock protein 18kDa-hsp from Mycobacterium leprae as an alternative carrier protein with a T epitope source to enhance the activity of these second generation vaccines. Here we proved that the 18kDa-hsp acted as carrier, without masking the activity of the carried antigen, with similar immune stimulatory effect when compared with ODN1668. Supramol. aggregates of 18kDa-hsp and Mice serum albumin (MSA) were obtained using glutaraldehyde as cross linker. The Neisseria meningitidis serogroup C polysaccharide (PSC, a B epitope) and the carrier protein 18kDa-hsp were co-encapsulated within Soybean phosphatidylcholine liposomes (SPC:Cho:α-Toc, 22:5:0.18 molar ratio, resp.). These liposomes were prepared in MPB buffer (20 mM phosphate, 295 mM mannitol pH 7.2) in the presence or absence of the ODN1668, TCCATGACGTTCCTGATGCT. When mice were injected with 18kDa-hsp-MSA no antibody against the MSA was observed This means that the 18kDa-hsp acted as carrier, without masking the carried protein immune activity. Stable liposomes of 150 nm were obtained using mannitol as a cryoprotector. Genetically selected mice when injected with liposomes containing PSC and 18kDa-hsp displayed an antibody titer of 12. In contrast, in those mice injected with free PSC there was no response. The 18kDa-hsp adjuvant effect on the PSC liposomal formulation was comparable to that observed when ODNI668 was co-encapsulated with PSC. Confirming our expectations we observed that the formulation containing 18kDa-hsp conferred a memory response to the carried antigen-the Neisseria meningitidis serogroup C polysaccharide.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:658588 CAPLUS
DOCUMENT NUMBER: 137:184455
TITLE: Synthetic vaccine agents
INVENTOR(S): Nielsen, Klaus Gregorius; Koefoed, Peter
PATENT ASSIGNEE(S): Den.
SOURCE: U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S. Ser. No. 785,215.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002119162	A1	20020829	US 2002-80101	20020219
WO 2001062284	A2	20010830	WO 2001-DK113	20010219
WO 2001062284	A3	20011129		

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002185197	A1	20021212	US 2001-785215		20010220
PRIORITY APPLN. INFO.:			WO 2001-DK113	A2	20010219
			US 2001-785215	A2	20010220
			DK 2001-1231	A	20010820
			US 2001-337543P	P	20011022
			DK 2000-265	A	20000221
			US 2000-186295P	P	20000301

ABSTRACT:
The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 sep. antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different mols. and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compns. comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention. The examples discuss the synthesis of a β-amyloid peptide copolymer vaccine, antibody titer determination, and assays to monitor CTL activity.

L3 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2002:33843 CAPLUS
DOCUMENT NUMBER:	137:159112
TITLE:	Bacterial **carriers** and virus-like-**particles** as antigen delivery devices: role of dendritic cells in antigen presentation
AUTHOR(S):	Beyer, Thomas; Herrmann, Martin; Reiser, Christian; Bertling, Wolf; Hess, Jurgen
CORPORATE SOURCE:	Institute for Clinical Immunology and Rheumatology, Medical Department III, University Erlangen-Nuremberg, Erlangen, D-91054, Germany
SOURCE:	Current Drug Targets: Infectious Disorders (2001), 1(3), 287-302 CODEN: CDTIAS; ISSN: 1568-0053
PUBLISHER:	Bentham Science Publishers Ltd.
DOCUMENT TYPE:	Journal; General Review
LANGUAGE:	English

ABSTRACT:
A review. Replicating attenuated strains of intracellular bacteria like Salmonella typhimurium, Listeria monocytogenes or Mycobacterium bovis Bacille Calmette Guerin (BCG), and non-replicating virus-like-**particles** (VLP) consisting, for instance, of the VP1-surface component of polyoma virus offer great potential as heterologous **carriers** delivering foreign protein antigens for immune recognition. Moreover, attenuated S. typhimurium and L. monocytogenes strains hold also great promise as delivery vehicles for ***DNA*** **vaccines**. Polyoma virus-specific VLP consisting of VP1-pentamers are also of interest as carrier devices for eukaryotic expression plasmids. At first sight these different replicating and non-replicating types of vehicles have little in common, but from an immunol. point of view viable bacteria and non-viable VLP are both well suited for evoking protective immune responses via several routes of vaccine administration. As these antigen carriers generate humoral and cell-mediated immunity, the heterologous antigens are not only targeted to appropriate pathways of major histocompatibility (MHC) class I and class II antigen processing and presentation, but also generate an adequate cytokine milieu for promoting antigen-specific responses. The most prominent advantage of these carrier devices is presented by their capacity to directly target antigenic proteins or **DNA vaccines** to immature dendritic cells (DC) along their maturation pathway. Mature DC are the key antigen presenting cell population which efficiently mediates antigen transport to organized lymphoid tissues for the initiation of T cell responses. In general, uptake of these diverse antigen delivery systems by antigen

presenting cells (APC) finally lead to efficacious immune responses in the control of pathogenic microorganisms and tumors.

REFERENCE COUNT: 149 THERE ARE 149 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:676624 CAPLUS
DOCUMENT NUMBER: 135:247186
TITLE: **DNA vaccines** against poxviruses
INVENTOR(S): Hooper, Jay W.; Schmaljohn, Alan L.; Schmaljohn, Connie S.
PATENT ASSIGNEE(S): U.S. Army Medical Research Institute of Infectious Diseases, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001066138	A2	20010913	WO 2001-US7391	20010307
WO 2001066138	A3	20020314		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002176871	A1	20021128	US 2001-800632	20010307
US 6562376	B2	20030513		

PRIORITY APPLN. INFO.: US 2000-187608P P 20000307
ABSTRACT:
A poxvirus naked **DNA vaccine** which protects animals against poxvirus challenge comprising nucleic acids encoding an intracellular mature virion (IMV) and nucleic acids encoding an extracellular enveloped virion (EEV) of poxvirus is described. Poxvirus is chosen from the group consisting of variola virus, monkeypox virus, cowpox virus, orf virus, paravaccinia virus, Tana pox virus, Yaba pox virus, and Molluscum contagiosum virus. Methods of use of the vaccine and its advantages are described. For example, in mice DNA vaccination with VACV IMV immunogens L1R or A27L elicited neutralizing antibodies while DNA vaccination with VACV EEV immunogens A33R and B5R elicited non-neutralizing antibodies. DNA vaccination with L1R+A27L+A33R+B5R completely protected mice from challenge, and the lack of weight loss indicates low morbidity.

L3 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:550692 CAPLUS
DOCUMENT NUMBER: 135:287149
TITLE: Particle acceleration for delivery of deoxyribonucleic acid vaccine into skin in vivo
AUTHOR(S): Yu, Xinglong; Zhang, Xiwen; Yuan, Wang; Xie, Junshi; Hao, Pengfei
CORPORATE SOURCE: Department of Precision Instruments, Tsinghua University, Beijing, 100084, Peop. Rep. China
SOURCE: Review of Scientific Instruments (2001), 72(8), 3390-3395
CODEN: RSINAK; ISSN: 0034-6748

PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Skin represents an important immunogenic inductive site, 3%-4% epidermis cells are special antigen-presenting cells. **DNA vaccine** can elicit vigorous immune responses in epidermis cells. The means of delivering ***DNA*** **vaccine** into epidermis cells becomes an important step in ***DNA*** **vaccine** applications. This article presents a new type of gene gun based on the principle of two-stage injector acceleration. DNA coated **particles** are attached on an screen-type **carrier** located at the neg. pressure inlet, the **particles** will be sucked into the accelerating channel by neg. pressure and be accelerated at a great speed. FLUENT, a computation fluid dynamic application software is used to simulate the flow condition of the injector. Distribution of Mach number, total pressure on exit cross section, and neg. pressure on neg. pressure inlet are analyzed, by which the process of acceleration of particles is determined We also measured these parameters in this study. The data show that the particle velocity can be up to 500 m/s and the particles distribute evenly over a circle of Φ 20 mm. The numerical simulation results coincide with exptl. data well. Therefore, the results of numerical simulation can be served as guidance for an optimal design of the gene gun and for practical operations. When gene coated particles are distributed evenly, they can penetrate into or even through epidermis cells where the gene can be expressed and subsequently elicits host immune responses. This device may be evaluated in human objects in future.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:338378 CAPLUS
DOCUMENT NUMBER: 134:339533
TITLE: Adjuvanted genetic vaccines
INVENTOR(S): Haynes', Joel R.; Widera, Georg; Fuller, James T.; Shipley, Timothy; Fuller, Deborah; Wu, Mary
PATENT ASSIGNEE(S): Powderject Vaccines, Inc., USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032208	A1	20010510	WO 1999-US25854	19991103
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1227840	A1	20020807	EP 1999-956885	19991103
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003516936	T2	20030520	JP 2001-534412	19991103
PRIORITY APPLN. INFO.:			WO 1999-US25854 W	19991103

ABSTRACT:
Reagents useful in nucleic acid immunization techniques are described. More particularly, adjuvanted genetic vaccine compns. are described, as are methods of using those compns. for inducing an enhanced immune response against a

selected antigen. The examples discuss vaccines using carcinoembryonic antigen, influenza NP, HIV gp120, and hepatitis B virus surface antigen as antigens and monophosphoryl lipid A and Quil A as adjuvants.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:553509 CAPLUS
DOCUMENT NUMBER: 133:168386
TITLE: Manufacture of therapeutic calcium phosphate particles
INVENTOR(S): Bell, Steve J. D.; Wagner-Bartak, Claus; Morcol, Tulin; He, Qing
PATENT ASSIGNEE(S): Biosante Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000046147	A2	20000810	WO 2000-US2742	20000203
WO 2000046147	A3	20001207		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000027531	A5	20000825	AU 2000-27531	20000203
EP 1150918	A2	20011107	EP 2000-905941	20000203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:		
US 1999-118355P	P	19990203
US 1999-118356P	P	19990203
US 1999-118364P	P	19990203
WO 2000-US2742	W	20000203

ABSTRACT:
Novel calcium phosphate core **particles**, methods of making them, and methods of using them as vaccine adjuvants, as cores, as **carriers** of a biol. active material, and as controlled release matrixes for biol. active material are disclosed. The core particles may have a surface modifying agent and/or biol. active material, such as antigenic material or natural immunoenhancing factor, polynucleotide material, or therapeutic proteins or peptides, partially coating the particle or impregnated therein. The core particles have a diameter between about 300 nm and about 4000 nm, more particularly between about 300 nm and about 2000 nm, and even more particularly between about 300 nm and about 1000 nm, are substantially spherical in shape, and have a substantially smooth surface. Thus, calcium phosphate was prepared by the reaction of CaCl2 with dibasic sodium phosphate. The particle size was maintained at <1000 nm. A surface modifier PEG was impregnated within the core calcium phosphate particles and contained a therapeutic protein.

L3 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:535019 CAPLUS
DOCUMENT NUMBER: 133:149126
TITLE: **DNA vaccines** against hantavirus infections

INVENTOR(S): Schmaljohn, Connie S.; Hooper, J. W.
PATENT ASSIGNEE(S): U.S. Medical Research Institute of Infectious Diseases, USA
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2000044406	A2	20000803	WO 2000-US1999		20000127
WO 2000044406	A3	20001116			
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
EP 1146900	A2	20011024	EP 2000-908388		20000127
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
US 2002114818	A1	20020822	US 2000-491974		20000127
PRIORITY APPLN. INFO.:			US 1999-117680P	P	19990129
			WO 2000-US1999	W	20000127

ABSTRACT:
Seoul virus (SEOV) is one of four known hantaviruses causing hemorrhagic fever with renal syndrome (HFRS). Candidate naked **DNA vaccines** for HFRS were constructed by subcloning cDNA representing the medium (M) (encoding the G1 and G2 glycoproteins) or small (S) (encoding the nucleocapsid protein) genome segment of SEOV into the **DNA** expression vector pWRG7077. We vaccinated BALB/c mice with three doses of the M or S **DNA** ***vaccine*** at 4-wk intervals by either gene gun inoculation of the epidermis, or needle inoculation into the gastrocnemius muscle. Both routes of vaccination resulted in antibody responses as measured by ELISA; however, gene gun inoculation elicited a higher frequency of seroconversion, and higher levels of antibodies in individual mice. We vaccinated Syrian hamsters with the M or S construct using the gene gun and found hantavirus-specific antibodies in 5/5 and 4/5 hamsters, resp. Animals vaccinated with the M construct developed a neutralizing antibody response which was greatly enhanced in the presence of guinea pig complement. Immunized hamsters were challenged with SEOV and, after 28 days, were monitored for evidence of infection. Hamsters vaccinated with M were protected from infection, but hamsters vaccinated with S were not protected.

L3 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:354420 CAPLUS
DOCUMENT NUMBER: 131:18001
TITLE: **DNA vaccines** against tick-borne flaviviruses
INVENTOR(S): Schmaljohn, Connie S.
PATENT ASSIGNEE(S): United States Army Medical Research and Material Command, USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9926653	A1	19990603	WO 1998-US25322		19981120
W: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
EP 1047448	A1	20001102	EP 1998-962851		19981120
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE, FI					
US 6258788	B1	20010710	US 1998-197218		19981120
PRIORITY APPLN. INFO.:			US 1997-65750P	P	19971120
			WO 1998-US25322	W	19981120

ABSTRACT:
Particle mediated immunization of tick-borne flavivirus genes confers homologous and heterologous protection against tick-borne encephalitis. Plasmids encoding premembrane (prM) and envelope (E) genes of Central European encephalitis (CEE) or Russian spring summer encephalitis (RSSE) flavivirus were prepared Gold particles coated with these prepared DNAs were delivered directly into epidermal cell by high velocity particle bombardment. The protective efficacy of the **DNA vaccines** were determined and discussed.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:141221 CAPLUS
DOCUMENT NUMBER: 130:208807
TITLE: Mucosal immunization using particle-mediated delivery techniques
INVENTOR(S): McCabe, Dennis E.
PATENT ASSIGNEE(S): Powderject Vaccines, Inc., USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9908689	A1	19990225	WO 1998-US17637	19980821
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRIORITY APPLN. INFO.:			US 1997-916166	19970821

ABSTRACT:
A method for eliciting an immune response against a virus or other pathogens in a mammalian subject is provided. The method includes the steps of providing a particle coated with DNA encoding an antigen derived from a virus, and then administering the particle to mucosal tissue of the mammal using particle-mediated delivery techniques, whereby the particle is delivered into a recipient cell in said tissue. The technique is capable of inducing an effective mucosal immune response in mammals. Thus, **DNA** ***vaccines*** sep. encoding swine influenza hemagglutinin, equine influenza hemagglutinin, or gag-pol-envelope protein of simian immunodeficiency virus were construct for immunization through rectum, tongue and buccal tissue.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:789046 CAPLUS
DOCUMENT NUMBER: 130:24104
TITLE: Immunopotentiating composition

INVENTOR(S): Fujioka, Keiji; Sano, Akihiko; Nagahara, Shunji; Brandon, Malcolm Roy; Nash, Andrew Donald; Lofthouse, Shari

PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan; The University of Melbourne; Koken Co., Ltd.

SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852605	A1	19981126	WO 1998-JP2172	19980518
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9804103	A	19981124	ZA 1998-4103	19980515
AU 9872385	A1	19981211	AU 1998-72385	19980518
AU 740133	B2	20011101		
EP 983088	A1	20000308	EP 1998-919633	19980518
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9809656	A	20000711	BR 1998-9656	19980518
NZ 500967	A	20010928	NZ 1998-500967	19980518
JP 11193246	A2	19990721	JP 1998-155343	19980519

PRIORITY APPLN. INFO.:	JP 1997-145920	A	19970519
	JP 1997-142461	A	19970530
	JP 1997-316285	A	19971030
	WO 1998-JP2172	W	19980518

ABSTRACT:
The present invention provides an immunopotentiating composition which comprises an antigen or antigen-inducing substance, and a carrier comprising a biocompatible material for effectively increasing an immune response derived from an antigen. The present invention further provides a method of producing an antibody by administering said immunopotentiating composition to a mammal or bird, thereby modulating the immune response in said mammal or bird and recovering the antibody produced.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:362362 CAPLUS

DOCUMENT NUMBER: 127:85924

TITLE: Potential of particulate carriers for the mucosal delivery of **DNA vaccines**

AUTHOR(S): Oya Alpar, H.; Ozsoy, Yildiz; Bowen, Joanne; Eyles, Jim E.; Conway, Barbara R.; Williamson, E. Diane

CORPORATE SOURCE: Pharmaceutical Sciences Institute, Aston University, Birmingham, B4 7ET, UK

SOURCE: Biochemical Society Transactions (1997), 25(2), 337S
CODEN: BCSTB5; ISSN: 0300-5127

PUBLISHER: Portland Press

DOCUMENT TYPE: Journal

LANGUAGE: English

ABSTRACT:
Results demonstrated that particles (polymer) are potential systems for

effective delivery of plasmid DNA. Effects of various formulations and routes of administration on the levels of immune responses were also shown.

L3 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1990:513355 CAPLUS
DOCUMENT NUMBER: 113:113355
TITLE: A subunit vaccine for hepatitis B produced by a recombinant vaccinia virus
AUTHOR(S): Wang, Yuan; Li, Zaiping; Han, Ya-Rue; Zhao, Kai; Hu, Zhonghan; Li, Heming
CORPORATE SOURCE: Shanghai Inst. Biochem., Acad. Sin., Shanghai, 200031, Peop. Rep. China
SOURCE: Vaccines 90: Mod. Approaches New Vaccines Incl. Prev. AIDS, [Conf.], 7th (1990), Meeting Date 1989, 187-91. Editor(s): Brown, Fred. Cold Spring Harbor Lab.: Cold Spring Harbor, N. Y.
CODEN: 56UPAE
DOCUMENT TYPE: Conference
LANGUAGE: English
ABSTRACT:
Hepatitis B is a very serious worldwide infectious disease. **Vaccines** against hepatitis B are derived from hepatitis B virus (HBV) surface antigen (HBsAg) **particles**, which can be prepared from the sera of HBsAg ***carriers*** and also by means of recombinant **DNA** technol. This report details the construction of a recombinant vaccinia virus and its application to the production of a subunit vaccine of hepatitis B.

=> DIS L7 1- TI
YOU HAVE REQUESTED DATA FROM 59 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 19.20 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L7 ANSWER 1 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
TI Multi-antigenic alphavirus replicon particles for generating antibody or immune response against pathogen or parasite infection and neoplasm

L7 ANSWER 2 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
TI Adjuvant acty of carrier proteins conjugated to antibodies against CD40 or CD28

L7 ANSWER 3 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
TI Methods of making viral particles having a modified cell binding activity and uses in gene therapy

L7 ANSWER 4 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
TI Molecular antigen arrays comprising AP205 **virus**-like particle and antigen for prevention and treatment of cancer, drug addiction, poisoning, infection, and allergy

L7 ANSWER 5 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
TI Delivery of substance to target sites using multilayer particles comprising charge switch materials

L7 ANSWER 6 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
TI Particle-bound HIV-1 envelope glycoproteins as vaccine against HIV infection or AIDS

L7 ANSWER 7 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
TI Optimization of gene sequences of **virus**-like particles for expression in insect cells and uses as antiviral vaccine

(Biological study); USES (Uses)
(multi-antigenic alphavirus replicon particles for generating antibody or immune response against pathogen or parasite infection and neoplasm)

IT 631-61-8, Ammonium acetate 1066-33-7, Ammonium bicarbonate 7447-40-7, Potassium chloride, biological studies 7647-14-5, Sodium chloride, biological studies 7783-20-2, Ammonium sulfate, biological studies 7786-30-3, Magnesium chloride, biological studies 10043-52-4, Calcium chloride, biological studies 12125-02-9, Ammonium chloride, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(multi-antigenic alphavirus replicon particles for generating antibody or immune response against pathogen or parasite infection and neoplasm)

=> DIS L7 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 59 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 157.97 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L7 ANSWER 1 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:534303 CAPLUS
DOCUMENT NUMBER: 141:87778
TITLE: Multi-antigenic alphavirus replicon particles for generating antibody or immune response against pathogen or parasite infection and neoplasm
INVENTOR(S): Smith, Jonathan F.; Kamrud, Kurt; Dryga, Sergey; Caley, Ian
PATENT ASSIGNEE(S): Alphavax, Inc., USA
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004055166	A2	20040701	WO 2003-US39723	20031212

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-433058P P 20021213
US 2002-433299P P 20021213

ABSTRACT:
Viral replicon selected nucleic acid expression libraries are useful for analyzing multiple antigens associated with a parasite, pathogen or neoplasia or for preparing immunogenic compns. for generating immune responses specific for the parasite pathogen or neoplasia. Alphavirus replicon particles representative of the nucleic acid expression library are preferred. The nucleic acid library can be a random library, or it can be prepared after a selection step, for example, by differential hybridization prior to cloning into the replicon ***vector.***

L7 ANSWER 2 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:412975 CAPLUS
DOCUMENT NUMBER: 140:422398
TITLE: Adjuvant acty of carrier proteins conjugated to antibodies against CD40 or CD28
INVENTOR(S): Heath, Andrew
PATENT ASSIGNEE(S): Adjuvantix Limited, UK
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041866	A1	20040521	WO 2003-GB4738	20031103

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2002-25736 A 20021105

ABSTRACT:
The author discloses an adjuvant comprising a conjugate of carrier and an antibody directed against CD28 or CD40. The adjuvant is used in a vaccine composition to immunize animals, typically but not exclusively, against T-cell independent antigens; the T-cell independent antigen itself comprising a conjugate with the above carrier. In one example, the carrier is tetanus toxoid.

L7 ANSWER 3 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:60684 CAPLUS
DOCUMENT NUMBER: 140:123680
TITLE: Methods of making viral particles having a modified cell binding activity and uses in gene therapy
INVENTOR(S): Casimir, Colin Maurice
PATENT ASSIGNEE(S): Imperial College Innovations Limited, UK
SOURCE: PCT Int. Appl., 136 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007735	A1	20040122	WO 2003-GB3012	20030711

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,

GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: GB 2002-16081 A 20020711
ABSTRACT:
The present invention relates to a method for packaging viral particles such that one or more peptides on the surface of the **virus** particle are derived from the packaging cell. The methods have the advantage that a single type of viral particle can have a common effect upon many different cell types in a cell type-specific manner by transferring a single type of viral particle into different packaging cell lines that express a single target cell specific polypeptide on a cell surface membrane through which the **virus** particle buds, it is possible to manufacture a range of viral particles, each having a different cell type specific tropism conferred by the passenger peptide incorporated into its viral envelope. Such a system is of use, for example, in gene therapy treatments.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:60544 CAPLUS
DOCUMENT NUMBER: 140:144682
TITLE: Molecular antigen arrays comprising AP205 **virus**-like particle and antigen for prevention and treatment of cancer, drug addiction, poisoning, infection, and allergy
INVENTOR(S): Bachmann, Martin F.; Tissot, Alain; Pumpens, Paul; Cielens, Indulis; Renhofa, Regina
PATENT ASSIGNEE(S): Cytos Biotechnology AG, Switz.
SOURCE: PCT Int. Appl., 170 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007538	A2	20040122	WO 2003-EP7572	20030714
WO 2004007538	A3	20040304		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004076611	A1	20040422	US 2003-617876	20030714

PRIORITY APPLN. INFO.: US 2002-396126P P 20020717
ABSTRACT:
The present invention provides a composition comprising an AP205 **virus** like particle (VLP) and an antigen. The invention also provides a process for producing an antigen or antigenic determinant bound to AP205 VLP. AP205 VLP bound to an antigen is useful in the production of compns. for inducing immune responses that are useful for the prevention or treatment of diseases, disorders or conditions including infectious diseases, allergies, cancer, drug addiction, poisoning and to efficiently induce self-specific immune responses, in particular antibody responses.

L7 ANSWER 5 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:971924 CAPLUS
DOCUMENT NUMBER: 140:13698
TITLE: Delivery of substance to target sites using multilayer particles comprising charge switch materials
INVENTOR(S): Harper, Garry Robert; Cooper, Paula; Baker, Matthew John
PATENT ASSIGNEE(S): Dna Research Innovations Limited, UK
SOURCE: PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101494	A1	20031211	WO 2003-GB2417	20030602

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2002-12826 A 20020531
ABSTRACT:
Materials and method are disclose for delivering a desired substance to a target site, using a layered carrier in which the carrier and the substance together form at least three layers which associate by ionic interaction at the first pH, where at least one layer comprises a charge switch material which comprises an ionizable group and which has a pos. charge at a first pH and a charge which is less pos., neutral or neg. at a second pH, at least one layer comprises a polyionic polymer which is neg. charged at the first pH and at least one layer comprises the desired substance. Preferred carriers are based on the charge switch material poly Bis-Tris and the polyionic polymer polyacrylic acid. The desired substance is selected from a nucleic acid, pharmaceutically active compound, protein, carbohydrate, growth factor, hormone, enzyme, vaccine, cell, cell component, **virus**, fertilizer, pesticide, insecticide, herbicide, fungicide, vitamin, feed supplement, imaging agent, dye, chelating agent, cosmetic, paint, detergent, lipid, food supplement and neutraceutical.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 59 CAPLUS
ACCESSION NUMBER: 2003:837364 CAPLUS
DOCUMENT NUMBER: 139:349644
TITLE: Particle-bound HIV-1 envelope glycoproteins as vaccine against HIV infection or AIDS
INVENTOR(S): Olson, William C.; Schulke, Norbert; Gardner, Jason; Maddon, Paul J.
PATENT ASSIGNEE(S): Progenics Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 200 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003087757	A2	20031023	WO 2002-US28332	20020906
WO 2003087757	A3	20040701		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-370410P P 20020405

ABSTRACT:
This invention provides a first composition comprising a pharmaceutically acceptable particle and a stable HIV-1 prefusion envelope glycoprotein trimeric complex operably affixed thereto. This invention further provides a second composition comprising (a) a pharmaceutically acceptable particle, (b) an antigen, and (c) an agent which is operably affixed to the particle and is specifically bound to the antigen, whereby the antigen is operably bound to the particle. Finally, this invention provides related nucleic acids, **vectors**, cells, compns., production methods, and prophylactic and therapeutic methods.

L7 ANSWER 7 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:656891 CAPLUS
DOCUMENT NUMBER: 139:202455
TITLE: Optimization of gene sequences of **virus**-like particles for expression in insect cells and uses as antiviral vaccine
INVENTOR(S): Robinson, Robin A.
PATENT ASSIGNEE(S): Novavax, Inc., USA
SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068933	A2	20030821	WO 2003-US4480	20030214
WO 2003068933	A3	20040311		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003228696	A1	20031211	US 2003-367095	20030214
US 2004063188	A1	20040401	US 2003-368046	20030214
US 2004121465	A1	20040624	US 2003-367367	20030214

PRIORITY APPLN. INFO.:
US 2002-356113P P 20020214
US 2002-356118P P 20020214
US 2002-356119P P 20020214
US 2002-356123P P 20020214

US 2002-356126P	P	20020214
US 2002-356133P	P	20020214
US 2002-356135P	P	20020214
US 2002-356150P	P	20020214
US 2002-356151P	P	20020214
US 2002-356152P	P	20020214
US 2002-356154P	P	20020214
US 2002-356156P	P	20020214
US 2002-356157P	P	20020214
US 2002-356161P	P	20020214
US 2002-356162P	P	20020214

ABSTRACT:
The present invention provides codon optimized polynucleotides for optimal expression of recombinant proteins in eukaryotic cells and their uses as a vaccine. The codon optimized polynucleotides encode a viral capsid protein that self assembles into a **virus**-like particle. The **virus**-like particle is expressed extracellularly and exhibits conformational antigenic epitopes capable of raising neutralizing antibodies. Pharmaceutical compns., vaccines, and diagnostic test kits containing the gene products of the codon-optimized polynucleotides are also provided.

L7 ANSWER 8 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:633900 CAPLUS
DOCUMENT NUMBER: 139:178686
TITLE: Recombinant vaccines comprising CD8+ T cell epitope antigens and hepatitis B core antigen **particle** as **carriers** against infectious pathogens and malignancies
INVENTOR(S): Zavala, Fidel; Birkett, Ashley J.
PATENT ASSIGNEE(S): New York University Medical Center, USA
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066833	A2	20030814	WO 2003-US3897	20030207
WO 2003066833	A3	20040729		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003185854	A1	20031002	US 2003-360836	20030207

PRIORITY APPLN. INFO.: US 2002-354963P P 20020208

ABSTRACT:
The present invention relates to methods and compns. for augmenting CD8+ T cell responses to an antigen in a mammal, comprising the use of recombinant hepatitis B core particles (rHEP) to present said antigen. The invention further relates to a method of boosting the rHEP particle-induced CD8+ T cell responses using secondary immunization with a recombinant vaccinia ***virus*** expressing the same antigen (rVAC). The methods and compns. of the present invention can be useful for prophylaxis and treatment of various infectious and neoplastic diseases.

L7 ANSWER 9 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:570768 CAPLUS
DOCUMENT NUMBER: 139:122714
TITLE: Composition and method for maintaining non-enveloped viral **vectors**
INVENTOR(S): Kovesdi, Imre; Ransom, Stephen C.
PATENT ASSIGNEE(S): Genvec, Inc., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003059292	A2	20030724	WO 2003-US831	20030113
WO 2003059292	A3	20040205		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003153065	A1	20030814	US 2002-46517	20020114

PRIORITY APPLN. INFO.: US 2002-46517 A 20020114
ABSTRACT:
The invention provides a composition and a method for preserving a non-enveloped viral **vector**. The composition comprises (a) trehalose, (b) a divalent metal salt, a cationic polymer, or a combination thereof, (c) a multiplicity of non-enveloped viral **vector particles**, and (d) a liquid ***carrier.*** Non-enveloped **virus** particles are stable in the composition in a liquid form, at elevated temps., for a sustained period of time.

L7 ANSWER 10 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:242184 CAPLUS
DOCUMENT NUMBER: 138:285995
TITLE: Packaging of immunostimulatory substances and antigens into **virus**-like particles for use as vaccines against cancer, autoimmune disease, allergy and viral infection
INVENTOR(S): Maurer, Patrick; Tissot, Alain; Schwarz, Katrin; Meijerink, Edwin; Lipowsky, Gerad; Pumpens, Paul; Cielens, Indulis; Renhofa, Regina; Bachmann, Martin F.; Storni, Tazio
PATENT ASSIGNEE(S): Cytos Biotechnology A.-G., Switz.
SOURCE: PCT Int. Appl., 322 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003024481	A2	20030327	WO 2002-IB4132	20020916
WO 2003024481	A3	20040603		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003099668	A1	20030529	US 2002-244065		20020916
PRIORITY APPLN. INFO.:			US 2001-318994P	P	20010914
			US 2002-374145P	P	20020422

ABSTRACT:
The invention relates to the finding that **virus**-like particles (VLPs) can be loaded with immunostimulatory substances, in particular with DNA oligonucleotides containing non-methylated C and G (CpGs). Such CpG-VLPs are dramatically more immunogenic than their CpG-free counterparts and induce enhanced B and T cell responses. The immune response against antigens optionally coupled, fused or attached otherwise to the VLPs is similarly enhanced as the immune response against the VLP itself. In addition, the T cell responses against both the VLPs and antigens are especially directed to the Th1 type.
Antigens attached to CpG-loaded VLPs may therefore be ideal vaccines for prophylactic or therapeutic vaccination against allergies, tumors and other self-mols. and chronic viral diseases.

L7 ANSWER 11 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2003:228137 CAPLUS
DOCUMENT NUMBER:	139:47799
TITLE:	Chimeric Newcastle disease **virus** nucleocapsid with parts of viral hemagglutinin-neuraminidase and fusion proteins
AUTHOR(S):	Rabu, A.; Tan, W. S.; Kho, C. L.; Omar, A. R.; Yusoff, K.
CORPORATE SOURCE:	Department of Biochemistry and Microbiology, Faculty of Science and Environmental Studies, University Putra Malaysia, Selangor, 43400 UPM, Malay.
SOURCE:	Acta Virologica (English Edition) (2002), 46(4), 211-217 CODEN: AVIRA2; ISSN: 0001-723X
PUBLISHER:	Slovak Academic Press Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:
The nucleocapsid (NP) protein of Newcastle disease **virus** (NDV) self-assembled in Escherichia coli as ring-like and herringbone-like particles. Several chimeric NP proteins were constructed in which the antigenic regions of the hemagglutinin-neuraminidase (HN) and fusion (F) proteins of NDV, myc epitope, and six histidines (a hexa-His tag) were linked to the C-terminus of the NP monomer. These chimeric proteins were expressed efficiently in soluble form in E. coli as detected by Western blot anal. Electron microscopy of the purified products revealed that they self-assembled into ring-like particles. These chimeric particles exhibited antigenicity of the myc epitope, suggesting that the foreign sequences were exposed on the surface of the particles. Chickens inoculated with the chimeric **particles** mounted an immune response against NDV, suggesting the possibility of use of the ring-like ***particle*** as a **carrier** of immunogens in subunit vaccines and immunol. reagents.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:906493 CAPLUS
DOCUMENT NUMBER: 138:1072
TITLE: Replicons derived from Mengo **virus** genomes useful for the production of heterologous proteins in mammalian cells and uses as vaccines
INVENTOR(S): Escriou, Nicolas; Van Der Werf, Sylvie; Vignuzzi, Marco; Gerbaud, Sylvie
PATENT ASSIGNEE(S): Institut Pasteur, Fr.
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002095023	A2	20021128	WO 2002-IB2810	20020523
WO 2002095023	A3	20030508		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003077251	A1	20030424	US 2002-152040	20020522
EP 1390517	A2	20040225	EP 2002-743559	20020523
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2001-292515P P 20010523
WO 2002-IB2810 W 20020523

ABSTRACT:
The present invention relates to replicons or self-replicating RNA mols., derived from the genome of cardioviruses and aphtoviruses, which can be used to express heterologous proteins in animal cells. When injected in an animal host, for example in the form of naked RNA, these replicons permit the translation of the encoded heterologous protein. If the encoded heterologous protein is a foreign antigen, these replicons induce an immune response against the encoded heterologous protein. The invention uses cardiovirus and aphtovirus genomes to construct these replicons. The invention demonstrates that these replicons, when injected as naked RNA, can induce immune responses against a replicon-encoded heterologous protein in an animal recipient without the help of any kind of carrier or adjuvant.

L7 ANSWER 13 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:888940 CAPLUS
DOCUMENT NUMBER: 137:364405
TITLE: Corona-**virus**-like particles comprising functionally deleted genomes and their use as **vectors** for gene delivery or vaccines
INVENTOR(S): Rottier, Petrus Josephus Marie; De Haan, Cornelis Alexander Maria; Haijema, Bert Jan; Bosch, Berend Jan
PATENT ASSIGNEE(S): Universiteit Utrecht, Neth.; Stichting
SOURCE: PCT Int. Appl., 138 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002092827	A2	20021121	WO 2002-NL318	20020517
WO 2002092827	A3	20040527		

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

NZ 529691	A	20031219	NZ 2002-529691	20020517
US 2004071709	A1	20040415	US 2003-414256	20030414
PRIORITY APPLN. INFO.:			EP 2001-201861 A	20010517
			WO 2002-NL318 A1	20020517

ABSTRACT:
The invention relates to the field of coronaviruses and diagnosis, therapeutic use and vaccines derived thereof. The invention provides replicative coronaviruses and replicative **virus**-like particles (VLPs) from which large parts of their genome are (at least functionally) deleted without abolishing their replicative capacities. Said deletion is preferably resulting in at least a functional deletion in that the corresponding gene is not or only partly expressed whereby the resulting gene product is dysfunctional or at least functionally distinct from a corresponding wild-type gene product. One striking result seen with VLPs provided with deletions as provided herein is that said deleted VLP, albeit capable of replication in vitro and in vivo, are in general well attenuated, in that they do not cause disease in the target host, making them very suitable for therapeutic use, said as a delivery vehicle for genes and other cargo (whereby specific targeting may be provided as well when desired), and for use as a vaccine, being attenuated while carrying important immunogenic determinants that help elicit an immune response.

L7 ANSWER 14 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2002:882587 CAPLUS
DOCUMENT NUMBER:	138:51641
TITLE:	Folding of the rabbit hemorrhagic disease **virus** capsid protein and delineation of N-terminal domains dispensable for assembly
AUTHOR(S):	Laurent, S.; Kut, E.; Remy-Delaunay, S.; Rasschaert, D.
CORPORATE SOURCE:	Laboratoire de Virologie et Barriere d'Espece, INRA, Tours, Fr.
SOURCE:	Archives of Virology (2002), 147(8), 1559-1571 CODEN: ARVIDF; ISSN: 0304-8608
PUBLISHER:	Springer-Verlag Wien
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:
Rabbit hemorrhagic disease **virus** (RHDV) and European brown hare syndrome **virus** (EBHSV) are caliciviruses that produce severe symptoms and are lethal to rabbits and hares. The folding of the capsid protein was studied by determination of the antigenic pattern of chimeric capsid proteins, composed
of regions from RHDV and EBHSV capsid proteins. The anti-RHDV monoclonal antibody (MAb) E3, which is known to bind an external conformational epitope, recognized the RHDV C-terminal region. The anti-RHDV MAb A47, which binds a buried epitope, recognized the RHDV N-terminal region. Using a pGEX expression

library, we more precisely mapped the MAb A47 epitope on a 31 residues length peptide, between residue 129 and 160 of the VP60, confirming its location in the N-terminal part of the protein. These results demonstrate that the C-terminal part of the protein is accessible to the exterior whereas the N-terminal domain of the protein constitutes the internal shell domain of the particle. With the aim of using **virus**-like **particles** (VLPs) of RHDV as epitope **carriers** or DNA transfer **vectors**, we produced in the baculovirus system three proteins, ΔN1, ΔN2 and ΔN3, truncated at the N terminus. The ΔN1 protein assembled into VLPs, demonstrating that the first 42 amino acid residues are not essential for capsid assembly. In contrast, ΔN2, from which the first 75 residues were missing, was unable to form VLPs. The small particles obtained with the ΔN3 protein lacking residues 31 to 93, located in the immunodominant region of the RHDV capsid protein, indicate that up to 62 amino acid residues can be eliminated without preventing assembly.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 15 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:850680 CAPLUS
DOCUMENT NUMBER: 138:164260
TITLE: Poxviral/retroviral chimeric **vectors** allow cytoplasmic production of transducing defective retroviral particles
AUTHOR(S): Holzer, Georg W.; Falkner, Falko G.
CORPORATE SOURCE: Baxter Bioscience, Austria
SOURCE: Methods in Molecular Medicine (2003), 76(Viral Vectors for Gene Therapy), 565-578
CODEN: MMMEFN
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Vaccinia **virus** is widely used as a chimeric carrier for small RNA ***viruses*** , such as retroviruses, which are used in gene therapy. Methods are presented for the generation of hybrid **vectors**, and for their use to produce retroviral **vector** particles in packaging cells.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 16 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:809081 CAPLUS
DOCUMENT NUMBER: 139:26411
TITLE: **Virus**-like particles containing cytokine plasmid DNA
AUTHOR(S): Oh, Yu-Kyoung; Son, Tae-Jong; Sin, Kwang-Sook; Kang, Min-Jeong; Kim, Jung Mogg; Kim, Nam Keun; Ko, Jung Jae; Kim, Chong-Kook
CORPORATE SOURCE: College of Medicine, Pochon CHA University, Pochon, Kyonggi-do, 487-800, S. Korea
SOURCE: Yakche Hakhoechi (2001), 31(3), 185-190
CODEN: YAHAEX; ISSN: 0259-2347
PUBLISHER: Korean Society of Pharmaceutics
DOCUMENT TYPE: Journal
LANGUAGE: Korean
ABSTRACT:
Human papillomavirus (HPV) infection is known to cause cervical cancers. Human papillomavirus-like particles (VLP) have been studied as preventive vaccines of cervical cancers. To develop VLP as a therapeutic gene **carrier**, we studied the method to encapsulate cytokine genes in **virus**-like ***particles.*** HPV type 16 capsid L1 genes were amplified by polymerase chain reaction and cloned into T **vector**. L1 gene was then inserted

into baculovirus transfer **vector**. The clone of baculovirus encoding L1 gene was isolated and used to express L1 protein in Sf 21 insect cells. VLP were purified by CsCl d. gradient and ultracentrifugation. VLP were disassembled to capsomer units by treatment of a reducing agent. Given that interleukin-2 (IL-2) genes have been used in anticancer gene therapy and as a mol. adjuvant, IL-2 cytokine plasmids were chosen as a model gene. IL-2 plasmids were incubated with the disassembled capsomer suspension. To reassemble the particles, the mixture of capsomers and cytokine plasmids was dialyzed. The disassembly and reassembly of VLP were confirmed by transmission electron microscopy. The entrapment of cytokine plasmids in reassembled VLP was tested by the stability of plasmids against DNase I. After treatment of reassembled **virus**-like particles with DNase I, discrete IL-2 DNA band was observed Our results indicate that IL-2 cytokine plasmid (3.5 kb size) can be encapsulated in the **virus**-like particles, suggesting the potential of VLP as a gene delivery system. Moreover, VLP containing the adjuvant cytokine plasmids might function as more effective subunit vaccines.

L7 ANSWER 17 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:778098 CAPLUS
DOCUMENT NUMBER: 137:293585
TITLE: Production of "biological carriers" for induction of immune responses and inhibition of viral replication
INVENTOR(S): Mosca, Joseph D.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002079396	A2	20021010	WO 2002-US4157	20020212
WO 2002079396	A3	20030220		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004116367	A1	20040617	US 2003-468047	20030813

PRIORITY APPLN. INFO.:			
US 2001-268066P	P	20010213	
WO 2002-US4157	W	20020212	

ABSTRACT:
This application provides a method to form non-infectious biol. carriers that may be used to deliver signals to cells either in vitro or in vivo. The invention relates to the field of antigen presentation for the activation and resultant induction of specific immune responses and the inhibition of viral replication using the biol. carriers. The biol. **carriers** are inactivated **virus particles** that have been specifically modified to give biol. properties different from the **virus** ***particles*** deriving from an unmodified host cell that (1) express at least one co-stimulatory mol. and (2a) at least one antigen that can initiate an immune response, and/or (2b) express surface mols. that suppress viral replication. The principle of the invention is demonstrated by proliferation expts. comparing the degree of stimulation by biol. carrier prepns. obtained from untransduced, anti-CD3, B7-1 + B7-2, and anti-CD3 and B7-1 + B7-2 transduced cell cultures.

L7 ANSWER 18 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:691729 CAPLUS
DOCUMENT NUMBER: 138:83870
TITLE: A new pinpoint gene delivery system using genetically engineered hepatitis B **virus** envelope L particles
AUTHOR(S): Kuroda, Syun'ichi; Okajima, Toshihide; Tanizawa, Katsuyuki
CORPORATE SOURCE: Institute of Scientific and Industrial Research, Osaka University, Japan
SOURCE: Materials Integration (2002), 15(7), 12-17
CODEN: MINTFB; ISSN: 1344-7858
PUBLISHER: Ti, Ai, Shi
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
ABSTRACT:
A review. Gene therapy is recognized as one of the most promising cures for cancer. Many attempts using **virus vectors** have been made for delivering genes to various cancer cells in human. While these gene therapies have shown noticeable efficacy, it has turned out that nonspecific introduction of genes into undesired cells and organs causes deleterious side effects. More importantly, the **virus vector**-derived DNA. may induce unexpected effects on human. Hepatitis B **virus** (HBV) is a human liver-specific DNA **virus**, whose genome harbors three overlapping envelope (env) genes in a single open reading frame, encoding S, M (pre-S2 + S), and L (pre-S1 + pre-S2 + S) proteins. In the last decade, the recombinant HBV env S and/or proteins were produced in yeast cells as particles and used as the immunogen for the new generation HB vaccines that were proven to be safely applicable to human. Recently, the pre-S1 peptide of L protein was also shown to possess the specific receptor for human liver cells, which is crucial for the infectivity of HBV. We previously succeeded overprodn. of the HBV env L particles in yeast cells (up to 42% of the total soluble protein). In the present studies, the L particles have been purified, characterized, and examined for the applicability to the gene delivery system. By AFM observation and sedimentation equilibrium, about 110 mols. of L proteins are assembled into a lipid vesicle to form a spherical particle (500 nm in diameter). To examine the L ***particles*** as gene **carriers**, a mammalian expression plasmid for GFP (green fluorescence protein) was incorporated into L **particles** by electroporation. The L particles (1μg) containing 8 ng of the plasmid were added to the culture medium of human hepatoma HepG2 cells (about 1 + 105 cells). After two days, more than 90% of the HepG2 cells expressed GFP, while the control non-human liver cells did not. Then, the nude mice transplanted with human hepatoma HuH-7 cells and human colon cancer WiDr cells were injected i.p. with the L particles (10 μg) containing 2.5 μg of the plasmid. Two weeks later, the fluorescence was observed specifically in the HuH-7 cells, but neither in the WiDr cells nor in the liver, spleen, kidney, and intestine of the mice. Because the L particle is an empty vesicle containing no viral DNA, it can be used as a safe and efficient **vector** for human liver-specific gene transfer. We are now evaluating the effectiveness of L particles as the novel drug delivery system, together with the genetically engineered L particles that can be applied for the pinpoint gene/drug delivery system to different tissues.

L7 ANSWER 19 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:107150 CAPLUS
DOCUMENT NUMBER: 136:166061
TITLE: Compositions for inducing self-specific anti-IgE antibodies and uses thereof
INVENTOR(S): Bachmann, Martin F.; Renner, Wolfgang A.
PATENT ASSIGNEE(S): Cytos Biotechnology A.-G., Switz.
SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002009751	A2	20020207	WO 2001-IB1353	20010723
WO 2002009751	A3	20020926		
WO 2002009751	C1	20030424		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002146422	A1	20021010	US 2001-916230	20010727

PRIORITY APPLN. INFO.: US 2000-221841P P 20000728

ABSTRACT:
The invention relates to compns. for the induction of anti-IgE antibodies in order to prevent or inhibit IgE-mediated disorders. The compns. contain carriers foreign to the immunized human or animal coupled to polypeptides containing fragments of the IgE mol. The fragment of the IgE mol. includes the constant CH1 and/or the CH4 domain of the IgE mol. The composition is administered to humans or animals in order to induce antibodies specific for endogenous IgE antibodies. These induced anti-IgE antibodies reduce or eliminate the pool of free IgE in the serum. Since many allergic diseases are mediated by IgE, IgE-mediated disorders are ameliorated in treated mammals.

L7 ANSWER 20 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:51505 CAPLUS
DOCUMENT NUMBER: 136:133599
TITLE: Polynucleotides encoding antigenic HIV type C polypeptides, polypeptides and uses thereof
INVENTOR(S): Zur Megede, Jan; Barnett, Susan W.; Engelbrecht, Susan; Van Rensburg, Estrelita Janse
PATENT ASSIGNEE(S): Chiron Corporation, USA; University of Stellenbosch
SOURCE: PCT Int. Appl., 233 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002004493	A2	20020117	WO 2001-US21241	20010705
WO 2002004493	A3	20030626		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1339738	A2	20030903	EP 2001-952426	20010705

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2004502445	T2	20040129	JP 2002-509356		20010705
PRIORITY APPLN. INFO.:			US 2000-610313	A	20000705
			WO 2001-US21241	W	20010705

ABSTRACT:
The present invention relates to polynucleotides encoding immunogenic HIV type C polypeptides. Uses of the polynucleotides in applications including DNA immunization, generation of packaging cell lines, and production of HIV Type C proteins are also described.

L7 ANSWER 21 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:713434 CAPLUS
DOCUMENT NUMBER: 135:254098
TITLE: Magnetic, silanized polyvinylalcohol-based carrier materials and their use in nucleic acid isolation
INVENTOR(S): Parker, W. Jeffrey; Oster, Juergen; A Brassard, Lothar
PATENT ASSIGNEE(S): Chemagen Biopolymer-Technologie Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070831	A1	20010927	WO 2001-EP3061	20010316
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10013995	A1	20010927	DE 2000-10013995	20000322
EP 1274745	A1	20030115	EP 2001-915369	20010316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003528181	T2	20030924	JP 2001-569031	20010316
US 2003109618	A1	20030612	US 2002-239385	20021120
PRIORITY APPLN. INFO.:			DE 2000-10013995	A 20000322
			WO 2001-EP3061	W 20010316

OTHER SOURCE(S): MARPAT 135:254098
ABSTRACT:
The present invention relates to magnetic, polymeric polyvinylalc.-based carrier materials. The surface of said materials is at least partially silanized. The invention also relates to a method for silanizing the surface of such materials and to the use of the magnetic, silanized carrier materials for isolating biol. material, preferably nucleic acids.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 22 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:687323 CAPLUS
DOCUMENT NUMBER: 135:240917
TITLE: Urease-based vaccine and treatment for Helicobacter infection
INVENTOR(S): Michetti, Pierre; Corthesy-Theulaz, Irene; Blum,

Andre; Davin, Catherine; Haas, Rainier; Kraehenbuhl, Jean-pierre; Saraga, Emilia
PATENT ASSIGNEE(S): Oravax, Inc., USA
SOURCE: U.S., 26 pp., Cont.-in-part of U. S. 5,972,336.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6290962	B1	20010918	US 1994-200346	19940223
US 5972336	A	19991026	US 1993-85938	19930706
CA 2184057	AA	19950831	CA 1995-2184057	19950223
WO 9522987	A1	19950831	WO 1995-US2202	19950223
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9519681	A1	19950911	AU 1995-19681	19950223
AU 694195	B2	19980716		
EP 751786	A1	19970108	EP 1995-912583	19950223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
HU 75374	A2	19970528	HU 1996-2310	19950223
BR 9506884	A	19970819	BR 1995-6884	19950223
JP 09509661	T2	19970930	JP 1995-522429	19950223
PL 179149	B1	20000731	PL 1995-316007	19950223
NZ 282535	A	20010330	NZ 1995-282535	19950223
NO 9603508	A	19961021	NO 1996-3508	19960822
FI 9603281	A	19961022	FI 1996-3281	19960822
US 2003007980	A1	20030109	US 2001-955739	20010918

PRIORITY APPLN. INFO.:

US 1992-970996	B2	19921103
US 1993-85938	A2	19930706
US 1994-200346	A	19940223
WO 1995-US2202	W	19950223

ABSTRACT:
The invention concerns a method of eliciting in a mammalian host a protective immune response to Helicobacter infection and treatment of Helicobacter infection by administering to the host an immunogenically effective amount of a Helicobacter urease or urease subunits as antigen. Vaccine compns. are also provided.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 23 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:676624 CAPLUS
DOCUMENT NUMBER: 135:247186
TITLE: DNA vaccines against poxviruses
INVENTOR(S): Hooper, Jay W.; Schmaljohn, Alan L.; Schmaljohn, Connie S.
PATENT ASSIGNEE(S): U.S. Army Medical Research Institute of Infectious Diseases, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001066138	A2	20010913	WO 2001-US7391	20010307
WO 2001066138	A3	20020314		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002176871	A1	20021128	US 2001-800632	20010307
US 6562376	B2	20030513		

PRIORITY APPLN. INFO.: US 2000-187608P P 20000307

ABSTRACT:
A poxvirus naked DNA vaccine which protects animals against poxvirus challenge comprising nucleic acids encoding an intracellular mature virion (IMV) and nucleic acids encoding an extracellular enveloped virion (EEV) of poxvirus is described. Poxvirus is chosen from the group consisting of variola ***virus*** , monkeypox **virus**, cowpox **virus**, orf ***virus*** , paravaccinia **virus**, Tana pox **virus**, Yaba pox ***virus*** , and Molluscum contagiosum **virus**. Methods of use of the vaccine and its advantages are described. For example, in mice DNA vaccination with VACV IMV immunogens L1R or A27L elicited neutralizing antibodies while DNA vaccination with VACV EEV immunogens A33R and B5R elicited non-neutralizing antibodies. DNA vaccination with L1R+A27L+A33R+B5R completely protected mice from challenge, and the lack of weight loss indicates low morbidity.

L7 ANSWER 24 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:489478 CAPLUS
DOCUMENT NUMBER: 135:103407
TITLE: Protein and cDNA of 8 kDa human signal recognition particle protein sequence homolog and therapeutic use thereof
INVENTOR(S): Mao, Yumin; Xie, Yi
PATENT ASSIGNEE(S): Shanghai Biowindow Gene Development Inc., Peop. Rep. China
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001048009	A1	20010705	WO 2000-CN714	20001225

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CN 1301724	A	20010704	CN 1999-125388	19991227
AU 2001021466	A5	20010709	AU 2001-21466	20001225

PRIORITY APPLN. INFO.: CN 1999-125388 A 19991227
WO 2000-CN714 W 20001225

ABSTRACT:

The invention provides cDNA sequences for 8 kDa novel human protein cloned from fetal brain, and its protein sequences which have sequence homol. to signal recognition particle protein. The invention also relates to constructing signal recognition particle protein 8 gene expression **vectors** to prepare recombinant signal recognition particle protein 8 protein using prokaryote or eukaryote cells. Methods of expressing and preparing recombinant signal recognition particle protein 8 protein and its antibody are described. Methods of using signal recognition particle protein 8 gene or protein products for the treatment of various kinds of diseases, such as cancer, blood diseases, HIV infection, immune diseases and inflammation are also disclosed.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 25 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:489448 CAPLUS
DOCUMENT NUMBER: 135:103379
TITLE: Protein and cDNA of 11 kDa human signal recognition particle subunit 54 sequence homolog and therapeutic use thereof
INVENTOR(S): Mao, Yumin; Xie, Yi
PATENT ASSIGNEE(S): Shanghai Biowindow Gene Development Inc., Peop. Rep. China
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001047979	A1	20010705	WO 2000-CN698	20001225
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CN 1301746	A	20010704	CN 1999-125793	19991227
AU 2001024991	A5	20010709	AU 2001-24991	20001225

PRIORITY APPLN. INFO.:			
	CN 1999-125793	A	19991227
	WO 2000-CN698	W	20001225

ABSTRACT:
The invention provides cDNA sequences for 11 kDa novel human protein cloned from fetal brain, and its protein sequences which have sequence homol. to signal recognition particle. The invention also relates to constructing signal recognition particle subunit 54 protein 11 gene expression **vectors** to prepare recombinant signal recognition particle subunit 54 protein 11 protein using prokaryote or eukaryote cells. Methods of expressing and preparing recombinant signal recognition particle subunit 54 protein 11 protein and its antibody are described. Methods of using signal recognition particle subunit 54 protein 11 gene or protein products for the treatment of various kinds of diseases, such as cancer, blood diseases, HIV infection, immune diseases and inflammation are also disclosed.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 26 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:360213 CAPLUS

DOCUMENT NUMBER: 134:337926
TITLE: Method using fumed metallic oxides for isolating DNA from a proteinaceous medium and kit for performing method
INVENTOR(S): Krupey, John
PATENT ASSIGNEE(S): Ligochem, Inc., USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001034844	A1	20010517	WO 2000-US31005	20001113
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1244811	A1	20021002	EP 2000-977161	20001113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 1999-164608P P 19991110
WO 2000-US31005 W 20001113

ABSTRACT:
A method is described for isolating DNA from a proteinaceous medium such as whole blood, Hb-containing urine or saliva. Also disclosed are test kits for practicing the method. Guanidine thiocyanate in sodium acetate pH 7.0 solution containing EDTA was added to Hb-containing and white blood cell-containing urine samples to
disrupt the cells, dissociate the DNA histone complex, and release free DNA into solution Contaminating proteins were removed by treating the chaotrope-containing urine with a water-insol. cross-linked polymeric acid, trade name ProCipitate. The DNA was captured with titanium oxide P25, the aggregate was washed, and DNA was recovered by treatment with NaOH.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 27 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:338378 CAPLUS
DOCUMENT NUMBER: 134:339533
TITLE: Adjuvanted genetic vaccines
INVENTOR(S): Haynes, Joel R.; Widera, Georg; Fuller, James T.; Shipley, Timothy; Fuller, Deborah; Wu, Mary
PATENT ASSIGNEE(S): Powderject Vaccines, Inc., USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032208	A1	20010510	WO 1999-US25854	19991103
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,				

IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1227840 A1 20020807 EP 1999-956885 19991103
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003516936 T2 20030520 JP 2001-534412 19991103

PRIORITY APPLN. INFO.: WO 1999-US25854 W 19991103

ABSTRACT:

Reagents useful in nucleic acid immunization techniques are described. More particularly, adjuvanted genetic vaccine compns. are described, as are methods of using those compns. for inducing an enhanced immune response against a selected antigen. The examples discuss vaccines using carcinoembryonic antigen, influenza NP, HIV gp120, and hepatitis B **virus** surface antigen as antigens and monophosphoryl lipid A and Quil A as adjuvants.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 28 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:206427 CAPLUS
DOCUMENT NUMBER: 135:165594
TITLE: The spermatozoon as a vehicle for viral infection
AUTHOR(S): Baccetti, B.; Piomboni, P.
CORPORATE SOURCE: Institute of General Biology and Center for the Study of Germinal Cells, C.N.R., University of Siena, Siena, Italy
SOURCE: Male Gamete (1999), 429-435. Editor(s): Gagnon, Claude. Cache River Press: Vienna, Ill. CODEN: 69BBGH
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English

ABSTRACT:

A review with 53 refs. Based on evidence obtained from various methodol. approaches, including immunocytochem., in situ hybridization at the electron microscopy level, polymerase chain reaction, and in vitro fertilization, an almost unanimous consensus has developed which supports the concept that spermatozoa can act as **vector** for HIV-1. Human spermatozoa incorporate HIV-1 via special receptors, different from the usual CD4 receptors, and they remain active and able to transport the viral particles into an oocyte during the fertilization process. Evidence also exists for the presence of viral particles in spermatozoa from animal species. The observation that HIV-1 **particles** inside spermatozoa can be carried over into oocytes raises concerns for the use of spermatozoa from HIV-1 ***carriers*** for achieving a pregnancy.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 29 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:193444 CAPLUS
DOCUMENT NUMBER: 136:1124
TITLE: Alternative gene delivery
AUTHOR(S): Rozenberg, Y.; Medvedkin, V.; Wang, J.; Shen, W. C.
CORPORATE SOURCE: Gene Therapy Laboratories, Keck School of Medicine, University of Southern California, Las Angeles, CA, 90033, USA
SOURCE: S.T.P. Pharma Sciences (2001), 11(1), 21-30 CODEN: STSSE5; ISSN: 1157-1489
PUBLISHER: Editions de Sante

DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review. The choice of gene delivery **vector** is a key factor for the success of gene therapy application. It dets. the efficiency of the gene packaging, unpackaging, expression, and delivery to the site of interest. A review with refs. Presently, the majority of gene therapy **vectors** are based on retroviral, adenoviral and liposomal particles. In this survey, we have highlighted multiple alternative gene delivery approaches that can be broadly divided into three categories: (i) viral and other microbial ***vector*** , (ii) peptide **carriers**, and (iii) non-viral ***particles.*** These alternative delivery systems are at various stages of development from the in vitro to the clin. studies. However, the diversity of these delivery techniques implies a pos. prognosis for gene therapy becoming a significant branch of tomorrow's medicine.

REFERENCE COUNT: 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 30 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:573685 CAPLUS
DOCUMENT NUMBER: 133:176167
TITLE: Mycobacterium tuberculosis , immunization
INVENTOR(S): Macklin, Michael D.; Fuller, Deborah L.
PATENT ASSIGNEE(S): Powderject Vaccines, Inc., USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000047227	A2	20000817	WO 2000-US3374	20000209
WO 2000047227	A3	20001221		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-119515P P 19990209
US 1999-161699P P 19991026

ABSTRACT:
Recombinant nucleic acid mols. are described. The mols. have a sequence or sequences encoding at least two M. tuberculosis antigens. **Vectors** and compns. containing these mols. are also described. In addition, compns. containing a cocktail of recombinant nucleic acid mols. having a sequence or sequences encoding one or more M. tuberculosis antigens are described. Methods of eliciting an immune response using these mols. and compns. are also described.

L7 ANSWER 31 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:553509 CAPLUS
DOCUMENT NUMBER: 133:168386
TITLE: Manufacture of therapeutic calcium phosphate particles
INVENTOR(S): Bell, Steve J. D.; Wagner-Bartak, Claus; Morcol, Tulin; He, Qing
PATENT ASSIGNEE(S): Biosante Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000046147	A2	20000810	WO 2000-US2742	20000203
WO 2000046147	A3	20001207		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000027531	A5	20000825	AU 2000-27531	20000203
EP 1150918	A2	20011107	EP 2000-905941	20000203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:		
US 1999-118355P	P	19990203
US 1999-118356P	P	19990203
US 1999-118364P	P	19990203
WO 2000-US2742	W	20000203

ABSTRACT:
Novel calcium phosphate core **particles**, methods of making them, and methods of using them as vaccine adjuvants, as cores, as **carriers** of a biol. active material, and as controlled release matrixes for biol. active material are disclosed. The core particles may have a surface modifying agent and/or biol. active material, such as antigenic material or natural immunoenhancing factor, polynucleotide material, or therapeutic proteins or peptides, partially coating the particle or impregnated therein. The core particles have a diameter between about 300 nm and about 4000 nm, more particularly between about 300 nm and about 2000 nm, and even more particularly between about 300 nm and about 1000 nm, are substantially spherical in shape, and have a substantially smooth surface. Thus, calcium phosphate was prepared by the reaction of CaCl2 with dibasic sodium phosphate. The particle size was maintained at <1000 nm. A surface modifier PEG was impregnated within the core calcium phosphate particles and contained a therapeutic protein.

L7 ANSWER 32 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:535019 CAPLUS
DOCUMENT NUMBER: 133:149126
TITLE: DNA vaccines against hantavirus infections
INVENTOR(S): Schmaljohn, Connie S.; Hooper, J. W.
PATENT ASSIGNEE(S): U.S. Medical Research Institute of Infectious Diseases, USA
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000044406	A2	20000803	WO 2000-US1999	20000127
WO 2000044406	A3	20001116		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,				

DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1146900	A2	20011024	EP 2000-908388	20000127
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002114818	A1	20020822	US 2000-491974	20000127
PRIORITY APPLN. INFO.:			US 1999-117680P	P 19990129
			WO 2000-US1999	W 20000127

ABSTRACT:
Seoul **virus** (SEOV) is one of four known hantaviruses causing hemorrhagic fever with renal syndrome (HFRS). Candidate naked DNA vaccines for HFRS were constructed by subcloning cDNA representing the medium (M) (encoding the G1 and G2 glycoproteins) or small (S) (encoding the nucleocapsid protein) genome segment of SEOV into the DNA expression **vector** pWRG7077. We vaccinated BALB/c mice with three doses of the M or S DNA vaccine at 4-wk intervals by either gene gun inoculation of the epidermis, or needle inoculation into the gastrocnemius muscle. Both routes of vaccination resulted in antibody responses as measured by ELISA; however, gene gun inoculation elicited a higher frequency of seroconversion, and higher levels of antibodies in individual mice. We vaccinated Syrian hamsters with the M or S construct using the gene gun and found hantavirus-specific antibodies in 5/5 and 4/5 hamsters, resp. Animals vaccinated with the M construct developed a neutralizing antibody response which was greatly enhanced in the presence of guinea pig complement. Immunized hamsters were challenged with SEOV and, after 28 days, were monitored for evidence of infection. Hamsters vaccinated with M were protected from infection, but hamsters vaccinated with S were not protected.

L7 ANSWER 33 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2000:278110 CAPLUS
DOCUMENT NUMBER:	132:289600
TITLE:	Minimal promoters and uses thereof for nucleic acid immunization and gene therapy
INVENTOR(S):	Fuller, James T.
PATENT ASSIGNEE(S):	Powderject Vaccines, Inc., USA
SOURCE:	PCT Int. Appl., 35 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000023592	A2	20000427	WO 1999-US24694	19991019
WO 2000023592	A3	20000727		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1123396	A2	20010816	EP 1999-960139	19991019
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

JP 2002527527	T2	20020827	JP 2000-577301		19991019
AU 766005	B2	20031009	AU 2000-17073		19991019
NZ 511798	A	20040130	NZ 1999-511798		19991019
PRIORITY APPLN. INFO.:			US 1998-104871P	P	19981019
			WO 1999-US24694	W	19991019

ABSTRACT:
A promoter system which provides a better expression in mammalian cells is provided. It was found that and expression system will provide for a greatly enhanced immune response against an encoded antigen when a promoter is used in a truncated, enhancer-less form. The enhancerless promoter sequence is referred as a minimal promoter. Reagents including a nucleic acid mol. which contains these minimal promoter sequences are also described. Methods for constructing these reagents, and methods for using these reagents are also described.

L7 ANSWER 34 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:96730 CAPLUS
DOCUMENT NUMBER: 133:115674
TITLE: Transfection complexes generated with adenovirus and polyethylenimine-condensed DNA
AUTHOR(S): Cotten, Matt; Saltik, Mediyha; Baker, Adam
CORPORATE SOURCE: Institute for Molecular Pathology, Vienna, Austria
SOURCE: Methods in Molecular Medicine (1999), 21(Adenovirus Methods and Protocols), 295-307
CODEN: MMMEFN
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

ABSTRACT:
A simple method of linking plasmid DNA to **carrier** adenovirus ***particles*** is described. The method uses the synthetic polycation polyethylenimine (PEI) to condense the plasmid DNA into a small, pos. charged complex. In addition to describing the PEI plasmid DNA/**virus** linkage method, the preparation of psoralen-inactivated carrier adenovirus is also described. Furthermore, a simple method for removing LPS from plasmid DNA is provided.

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 35 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:34990 CAPLUS
DOCUMENT NUMBER: 132:74515
TITLE: Gene transfer methods using retroviral **vectors** and enhancement with a combination of viral particles- and target cells-binding substances
INVENTOR(S): Ueno, Mitsuhiro; Yoshioka, Hirofumi; Konishi, Haruko; Hashino, Kimikazu; Morishita, Mio; Chono, Hideto; Miyamura, Tsuyoshi; Sano, Mutsumi; Asada, Kiyozo; Fujinaga, Kei; Kato, Ikunoshin
PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000001836	A1	20000113	WO 1999-JP3403	19990625

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,

JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9943938	A1	20000124	AU 1999-43938		19990625
EP 1094114	A1	20010425	EP 1999-926821		19990625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
EP 1362918	A1	20031119	EP 2003-16618		19990625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY					
US 2004058447	A1	20040325	US 2003-657076		20030909
PRIORITY APPLN. INFO.:			JP 1998-186240	A	19980701
			JP 1999-56915	A	19990304
			EP 1999-926821	A	19990625
			WO 1999-JP3403	W	19990625
			US 2001-743354	A3	20010109

ABSTRACT:
Described is an efficient method for introducing genes into target cells via retroviral **vectors**. The transduction is performed in the presence of the retroviral particles-binding substances such as fibronectin (fragments) or type V collagen (fragments) and, preferably, the target cells-binding substances such as laminin, mannose-type sugar chains, or the cells-specific antibodies. These substances can be immobilized on **carriers** such as the culture apparatus or **particles**. The method is further enhanced by (1) treating the protein substances with water-soluble carbodiimides and diamino compds. and (2) performing the transduction in a low-Fe medium. The method has lowered risk of contamination by the **virus** packaging cells and is useful for cell-specific introduction of genes into various cell types such as hematopoietic stem cells, CD3+ T cells, CD8+ cells, etc., for gene therapy.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 36 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:468575 CAPLUS
DOCUMENT NUMBER: 131:106842
TITLE: Polymeric carriers for delivery of bioactive agents
INVENTOR(S): Domb, Avraham J.; Zehavi, Zeev
PATENT ASSIGNEE(S): Efrat Biopolymers Ltd., Israel
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9936100	A2	19990722	WO 1999-IL23	19990114
WO 9936100	A3	19990923		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2283648	AA	19990722	CA 1999-2283648	19990114
AU 9918889	A1	19990802	AU 1999-18889	19990114

EP 967998		A2	20000105	EP 1999-900284		19990114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI						
JP 2001515522		T2	20010918	JP 1999-536971		19990114
PRIORITY APPLN. INFO.:				IL 1998-122933	A	19980114
				WO 1999-IL23	W	19990114

ABSTRACT:
The invention provides a polymeric carrier for delivery of a bioactive or bioreactive mol., comprising a stereocomplex of at least one biocompatible stereoselective polymer and a bioactive or bioreactive mol. L-Polylactide (1 g, mol. weight 30,000) and D-polylactide (1 g, mol. weight 30,000) were added to 70 mL acetonitrile at 60°. A clear solution became turbid after 4-5 h and after 2 days at 60°, a heavy white solid precipitated After 3 days, the solution was filtered and the stereocomplex was collected and dried in vacuum over night. Methotrexate was incorporated in the above stereocomplex in the form of a powder and the mixture was compression molded to form tablets.

L7 ANSWER 37 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	1999:405107 CAPLUS
DOCUMENT NUMBER:	131:63429
TITLE:	Needle-free injection of formulated nucleic acid molecules for gene therapy in mammals
INVENTOR(S):	Barry, Michael; Mumper, Russ; Smith, Lou
PATENT ASSIGNEE(S):	Genemedicine, Inc., USA; Baylor College of Medicine
SOURCE:	PCT Int. Appl., 37 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.		KIND	DATE	APPLICATION NO.		DATE
WO 9931262		A2	19990624	WO 1998-US26823		19981216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM						
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG						
CA 2315256		AA	19990624	CA 1998-2315256		19981216
AU 9919229		A1	19990705	AU 1999-19229		19981216
EP 1038016		A2	20000927	EP 1998-964020		19981216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI						
JP 2003528024		T2	20030924	JP 2000-539160		19981216
PRIORITY APPLN. INFO.:				US 1997-69754P	P	19971216
				WO 1998-US26823	W	19981216

ABSTRACT:
A novel method is provided for delivering nucleic acid mols. through and/or to the skin of mammals by needle-free injection involving the incorporation of formulated nucleic acid mols. with devices for injecting the mols. by air, fluid and/or mech. pressure. Disclosed are compns. and methods for enhancing the administration to and uptake of nucleic acids in a mammal. The methods disclosed provide an increased immune response by allowing the uptake of formulated nucleic acid mols. by a wide variety of cell types simultaneously. Also disclosed are examples which demonstrate that the combination of formulated nucleic acid mols. and needle-free injection methods results in immune responses which are superior to those obtained by conventional means of delivery. Methods for delivery, as well as methods for formulating nucleic

acid mols. with various compds., such as cationic complexing agents, polymeric and non-polymeric formulations, protective, interactive, non-condensing systems are also disclosed.

L7 ANSWER 38 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:297291 CAPLUS
DOCUMENT NUMBER: 130:291593
TITLE: Amelioration of ischemic damage using synthetic oxygen carriers
INVENTOR(S): Keipert, Peter E.; Faithfull, N. Simon; Flaim, Stephen F.; Rosenberg, Gwen H.
PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., USA
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9921541	A2	19990506	WO 1998-US22491	19981023
WO 9921541	A3	19990805		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9911179	A1	19990517	AU 1999-11179	19981023
EP 1023058	A2	20000802	EP 1998-953931	19981023
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6679859	B1	20040120	US 2000-530075	20000731
PRIORITY APPLN. INFO.:			US 1997-63502P P	19971024
			WO 1998-US22491 W	19981023

ABSTRACT:
A method of ameliorating tissue damage resulting from hypoxia or ischemia by administering systematically a synthetic oxygen carrier to an individual having or suspected of having blood vessel obstruction is disclosed. A synthetic oxygen **carrier** in a physiol. acceptable vehicle, wherein the synthetic oxygen **carrier** comprises submicron sized **particles** capable of passing through emboli-obstructed blood vessels is also disclosed. The synthetic oxygen carrier is preferably a fluorocarbon emulsion, crystalloid blood substitute, a colloid blood substitute, or a combination thereof.

L7 ANSWER 39 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:764294 CAPLUS
DOCUMENT NUMBER: 130:20573
TITLE: Tissue factor for influencing blood vessel formation
INVENTOR(S): Nawroth, Peter; Nakagawa, Katsumi; Zhang, Youming
PATENT ASSIGNEE(S): Merckle G.m.b.H., Germany
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9851321	A1	19981119	WO 1998-DE1306	19980508
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19719652	A1	19981203	DE 1997-19719652	19970509
AU 9883315	A1	19981208	AU 1998-83315	19980508
AU 746782	B2	20020502		
EP 980251	A1	20000223	EP 1998-933500	19980508
EP 980251	B1	20020821		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
JP 2001527555	T2	20011225	JP 1998-548691	19980508
AT 222501	E	20020915	AT 1998-933500	19980508
PT 980251	T	20030131	PT 1998-933500	19980508
ES 2184299	T3	20030401	ES 1998-933500	19980508
CZ 293005	B6	20040114	CZ 1999-3912	19980508
NO 9905459	A	19991108	NO 1999-5459	19991108
MX 9910214	A	20000731	MX 1999-10214	19991108
PRIORITY APPLN. INFO.:			DE 1997-19719652 A	19970509
			WO 1998-DE1278 A	19980507
			WO 1998-DE1306 W	19980508

ABSTRACT:
Tissue factor can be used to influence, especially to activate, the formation of blood vessels, above all in wound healing. It may be administered in the form of a nucleic acid, a tissue factor fragment, a mutant amino acid sequence, a fusion protein, in glycosylated or nonglycosylated form, or as an antibody to inhibit blood vessel formation. Thus, the entire translated region of the mouse tissue factor gene was integrated into the BamHI site of the multiple-cloning site of pcDNA3 under the control of the cytomegalovirus promoter to produce expression plasmid pcDNA3-TF. Treatment of full-thickness wounds on the backs of mice with a mixture of pcDNA3-TF and DOTAP transfection reagent resulted in formation of blood vessels in the wounds, as shown by i.v. nigrosine injection and by staining for smooth muscle cells with an antibody to α-actin.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 40 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:534615 CAPLUS
DOCUMENT NUMBER: 129:243821
TITLE: T cell-independent type I antibody response against B cell epitopes expressed repetitively on recombinant **virus** particles
AUTHOR(S): Fehr, Thomas; Skrastina, Dace; Pumpens, Paul; Zinkernagel, Rolf M.
CORPORATE SOURCE: Institute of Experimental Immunology, Department of Pathology, University Hospital, Zurich, CH-8091, Switz.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1998), 95(16), 9477-9481
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Recombinant viral or **virus**-like particles offer new tools for vaccine development. This study investigated hepatitis B core antigen (HBcAg) capsids

and RNA phage Qβ coats as carriers of a foreign epitope to induce antibody responses in mice. HBcAg capsids were shown to induce T cell-independent (TI) antibodies. The authors found that these particles behave as antigen-specific TI type 1 (TI-1) Ag comparable to other rigidly structured **viruses**. When a 5-aa long epitope of the pre-S1 domain of hepatitis B surface antigen (HBsAg) was introduced into the optimal position of the HBc mol., it also behaved as a TI-1 Ag. Best efficiency of the antibody response to the foreign epitope was achieved by a compensatory deletion after the epitope to retain the regular structure of the HBcAg capsid with a highly repetitive superficial exposition of the foreign epitope. For recombinant Qβ phage coats, a much more efficient antibody response to the foreign epitope was achieved when the foreign epitope was expressed repetitively on a particulate derivate of Qβ phage coats. Thus, recombinant **virus particles** are suitable vaccine **carriers** for the introduction of foreign B cell epitopes, if precise structural requirements are fulfilled.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 41 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:1560 CAPLUS
DOCUMENT NUMBER: 128:86401
TITLE: Altering the cell tropism of small RNA **viruses** and **virus**-like particles by introduction of immunoglobulin-like domains into the p71 coat protein
INVENTOR(S): Gordon, Karl Heinrich; Hanzlik, Terry Nelson
PATENT ASSIGNEE(S): Commonwealth Scientific and Industrial Research Organisation, Australia; Gordon, Karl Heinrich; Hanzlik, Terry Nelson
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9746666	A1	19971211	WO 1997-AU349		19970602
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9729446	A1	19980105	AU 1997-29446		19970602
AU 723006	B2	20000817			
EP 1015560	A1	20000705	EP 1997-923669		19970602
EP 1015560	B1	20040331			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2000511426	T2	20000905	JP 1998-500014		19970602
AT 263234	E	20040415	AT 1997-923669		19970602
US 6251654	B1	20010626	US 1999-194613		19990702
PRIORITY APPLN. INFO.:			AU 1996-234	A	19960531
			WO 1997-AU349	W	19970602

ABSTRACT:
The p71 coat proteins of small RNA **viruses** of insects (Tetraviridae) have a core segment with the structure of a member of the Ig superfamily that is responsible for binding to the insect midgut. The cell tropism of these ***viruses*** can therefore be altered by introducing altered Ig-like domains or other substituted tertiary structures into this core domain. Proteins of up

to 30 kilodaltons can be substituted for this domain. **Virus**, or ***virus*** -like particles derived from, it with modified cell tropism can be used as delivery vehicles in insecticidal and medical applications. In addition, the coat protein can be modified to minimize antigenicity for therapeutic use. The Ig-like structure could be exchanged for a minimal loop (the peptide SGSGS) without affecting particle formation and RNA packaging.

L7 ANSWER 42 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:764655 CAPLUS
DOCUMENT NUMBER: 128:44288
TITLE: Display **vectors**. I. Hepatitis B core particle as a display moiety
AUTHOR(S): Borisova, Galina; Borschukova, Olga; Skrastina, Dace; Mezule, Guna; Dislers, Andris; Petrovskis, Ivars; Ose, Velta; Gusars, Indulis; Pumpens, Pauls; Grens, Elmars
CORPORATE SOURCE: Biomedical Research and Study Centre, University of Latvia, Riga, LV-1067, Latvia
SOURCE: Proceedings of the Latvian Academy of Sciences, Section B: Natural, Exact and Applied Sciences (1997), 51(1/2), 1-7
CODEN: PLABFE; ISSN: 1407-009X
PUBLISHER: Latvian Academy of Sciences
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review, with 35 refs. Recombinant hepatitis B **virus** (HBV) core ***particles*** are widely used and are the most studied **carriers** for exposure of foreign amino acid sequences. Recombinant HBcAg mol. synthesized from the cloned gene in bacteria undergoes correct folding and forms two assembly products of 30 and 34-nm in diameter Electron cryomicroscopic anal. recently revealed their three-dimensional organization and suggested, along with the immunochem. mapping, the locations of the most accepted insertion targets on the particle. The major immunodominant region (MIR), located within the superficial loop in the central part of mol. around amino acid residues 78-83, presumably lies on the spikes, but the HBcAg → HBeAg processing site around positions 147-149 likely lies in the vicinity of holes penetrating the particle. These regions are used most often to direct foreign insertions to the outer or to the inner surface of the particle, resp. Special sets of display **vectors** have been constructed, and epitope sequences of viral proteins from BLV, FMDV, HBV, HIV-1 have been inserted and studied as model display elements.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 43 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:502949 CAPLUS
DOCUMENT NUMBER: 127:200710
TITLE: Polyethylenimine (PEI) is a simple, inexpensive and effective reagent for condensing and linking plasmid DNA to adenovirus for gene delivery
AUTHOR(S): Baker, A.; Saltik, M.; Lehrmann, H.; Killisch, I.; Mautner, V.; Lamm, G.; Christofori, G.; Cotten, M.
CORPORATE SOURCE: Institute of Molecular Pathology, Vienna, 1030, Austria
SOURCE: Gene Therapy (1997), 4(8), 773-782
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Stockton
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A simple and inexpensive method of condensing and linking plasmid DNA to ***carrier*** adenovirus **particles** is described. The synthetic

polycation polyethylenimine is used to condense plasmid DNA into pos. charged 100 nm complexes. These PEI-DNA complexes are then bound to adenovirus particles through charge interactions with neg. domains on the viral hexon. The resulting transfection complexes delivery plasmid DNA to cells by the adenovirus infectious route without interference from **virus** gene expression because psoralen-inactivated **virus** is employed. The PEI-DNA-adenovirus complexes display DNA delivery comparable to more sophositicated DNA **virus** complexes employing streptavidin/biotin linkage, but require no special reagents and are much easier to prepare

L7 ANSWER 44 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:431948 CAPLUS
DOCUMENT NUMBER: 127:166614
TITLE: Modified hepatitis B core **particles** as possible vaccine **carriers**
AUTHOR(S): Borschukova, Olga; Skrastina, Dace; Dislers, Andris; Petrovskis, Ivars; Ose, Velta; Zamurujeva, Inessa; Borisova, Galina
CORPORATE SOURCE: Biomedical Research and Study Centre, University of Latvia, Latvia
SOURCE: Vaccines 97: Molecular Approaches to the Control of Infectious Diseases, [Annual Meeting on Modern Approaches to the Control of Infectious Diseases], 14th, Cold Spring Harbor, N. Y., Sept. 9-13, 1996 (1997), Meeting Date 1996, 33-37. Editor(s): Brown, Fred. Cold Spring Harbor Laboratory Press: Cold Spring Harbor, N. Y.
CODEN: 64QNAJ
DOCUMENT TYPE: Conference
LANGUAGE: English
ABSTRACT:
The nonstructured central loop of the HBV core mol., localized between two α-helixes and encompassing amino acid residues 72-92 according to secondary structure predictions, was found to be advantageous for cloning and expression of foreign sequences by replacement of HBV core epitopes. Expts. showed that it is possible to insert foreign sequences into this region, which is in a good agreement with the predicted location of α-helixes and in contrast to the more rigid structure between residues 48-72 participating in the monomer-monomer interactions within dimers via disulfide bridges 48-48 and 61-61. Because of the polylinker located at position 144, it offers the concurrent insertion of foreign sequences into two protein target regions, increasing the polyfunctionality of new display **vectors**.

L7 ANSWER 45 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:313410 CAPLUS
DOCUMENT NUMBER: 126:342085
TITLE: What's going on in vaccine technology?
AUTHOR(S): Russo, Silvia; Turin, Lauretta; Zanella, Antonio; Ponti, Wilma; Poli, Giorgio
CORPORATE SOURCE: Institute of Microbiology and Immunology, Faculty of Veterinary Medicine, University of Milan, Milan, 10 I-20133, Italy
SOURCE: Medicinal Research Reviews (1997), 17(3), 277-301
CODEN: MRREDD; ISSN: 0198-6325
PUBLISHER: Wiley
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review with 165 refs. discussing expectations of vaccine efficacy, subunit vaccines, microencapsulation and sustained release of antigens, ISCOMs, ***virus*** -like **particles**, homologous vs. heterologous live ***vector*** **carriers** of epitopes, neg. immunol. markers and their

value in zootechnics and trade, gene therapy and nucleic acid vaccines, and bovine herpesvirus-1 as a model of vaccine application.

REFERENCE COUNT: 165 THERE ARE 165 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 46 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:731803 CAPLUS
DOCUMENT NUMBER: 126:1214
TITLE: Hapten-carrier conjugates, and their preparation, for use in drug-abuse therapy
INVENTOR(S): Swain, Philip A.; Schad, Victoria C.; Greenstein, Julia L.; Exley, Mark A.; Fox, Barbara S.; Powers, Stephen P.; Gefter, Malcolm L.; Briner, Thomas J.
PATENT ASSIGNEE(S): Immulogic Pharmaceutical Corporation, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9630049	A2	19961003	WO 1996-US4189	19960327
WO 9630049	A3	19970306		
W: AM, AT, AU, BB, BG, BR, BY, CA, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5760184	A	19980602	US 1995-563673	19951128
AU 9653749	A1	19961016	AU 1996-53749	19960327
EP 814843	A2	19980107	EP 1996-910595	19960327
EP 814843	B1	20031126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 254930	E	20031215	AT 1996-910595	19960327
PRIORITY APPLN. INFO.:			US 1995-414971 A	19950330
			US 1995-563673 A	19951128
			WO 1996-US4189 W	19960327

OTHER SOURCE(S): CASREACT 126:1214; MARPAT 126:1214
ABSTRACT:
Hapten-carrier conjugates capable of eliciting anti-hapten antibodies in vivo by administering, in a therapeutic composition, are disclosed. Methods of preparing said conjugates and therapeutic compns. are also disclosed. Where the hapten is a drug of abuse, a therapeutic composition containing the hapten-carrier conjugate is
particularly useful in the treatment of drug addiction, more particularly, cocaine addiction. Passive immunization using antibodies raised against conjugates of the instant invention is also disclosed. The therapeutic composition is suitable for co-therapy with other conventional drugs. Data are presented which demonstrate that cocaine-carrier conjugates can be synthesized which induce high-titer, cocaine-specific antibody responses.

L7 ANSWER 47 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:51528 CAPLUS
DOCUMENT NUMBER: 124:142854
TITLE: Hepatitis B **virus** core **particles** as epitope **carriers**

AUTHOR(S): Pumpens, P.; Borisova, G. P.; Crowther, R. A.; Grens, E.
CORPORATE SOURCE: Biomedical Res. Study Centre, Univ. Latvia, Riga, Latvia
SOURCE: Intervirology (1995), 38(1-2), 63-74
CODEN: IVRYAK; ISSN: 0300-5526
PUBLISHER: Karger
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review, with 84 refs. HBV core (HBc) **particle** is one of the most intensively studied particulate **carriers** for the insertion of foreign peptide sequences. Recombinant HBc protein expressed from the cloned gene undergoes the correct folding in a large variety of bacterial, yeast, insect and mammalian cells. Unique assembly properties and shape of 30/34-nm HBc particles allow substantial insertions into their primary structure without loss of their capsid-forming ability. N- and C-terminal regions, as well as the immunodominant loop in the middle of the mol. are widely accepted as targets for the introduction of foreign epitopes, ensuring retention and even enhancement of the original immunol. activity of inserted sequences. Special sets of display **vectors** have been constructed on the basis of the cloned HBc gene. Epitope sequences of viral (BLV, FeLV, FMDV, HBV, HCV HIV-1, HRV2, MCMV, PV-1, SIV) and nonviral (human chorionic gonadotropin) origin have been studied as model display moieties.

L7 ANSWER 48 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:352764 CAPLUS
DOCUMENT NUMBER: 122:158043
TITLE: A simple procedure to generate chimeric Pr55gag **virus**-like particles expressing the principal neutralization domain of human immunodeficiency **virus** type 1
AUTHOR(S): Brand, Denys; Mallet, Francois; Truong, Catherine; Roingeard, Philippe; Goudeau, Alain; Barin, Francis
CORPORATE SOURCE: Laboratoire de Virologie, Centre National de la Recherche Scientifique URA 1334, Centre Hospitalier Universitaire Bretonneau, 2 boulevard Tonnelle, 37044, Tours, Fr.
SOURCE: Journal of Virological Methods (1995), 51(2,3), 153-68
CODEN: JVMEDH; ISSN: 0166-0934
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The Pr55gag human immunodeficiency **virus** type 1 (HIV-1) precursor protein that is capable of auto-assembling was used as a carrier for a consensus sequence of the principal neutralization domain (PND) of the HIV-1 envelope. For this purpose, a modified HIV-1 gag gene with deletion of the sequence encoding a previously described p24 epitope (amino acids 196-228 of Pr55gag) was first obtained using PCR with degenerate primers, and then cloned. This deleted gag gene allowed in a second time the insertion of a synthetic oligonucleotide cassette encoding the North American/European consensus PND precisely in place of the p24 epitope. The chimeric gene was then inserted into a baculovirus transfer **vector** and expressed in insect cells. The construct formed 100-140 nm **virus**-like particles that were released into the extracellular medium. The use of a serum-free medium that supports growth of insect cells facilitated the downstream purification of the extracellular particles. The chimeric particles were recognized by monoclonal antibodies directed to V3 by Western blot but not by immune electron microscopy, suggesting that, although the inserted sequence was still antigenic it was not exposed at the surface of the particles. The results show the ability of Pr55gag to serve as a **carrier** for easy insertion, in a precisely defined region, of selected epitopes of gp120 surface envelope

protein, and to still auto-assemble in **virus**-like **particles**. However, the data indicate that exposed epitopes of the mature p24 protein are not presented similarly in the Pr55 precursor, and therefore that different constructs with various insertions in different places must be generated. Such constructs offer an attractive approach for HIV vaccine development and will need evaluation for both antigenicity and immunogenicity.

L7 ANSWER 49 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:555163 CAPLUS
DOCUMENT NUMBER: 121:155163
TITLE: Immunity to malaria elicited by hybrid hepatitis B **virus** core particles carrying circumsporozoite protein epitopes
AUTHOR(S): Schodel, Florian; Wirtz, Robert; Peterson, Darrell; Hughes, Janice; Warren, Richard; Sadoff, Jerald; Milich, David
CORPORATE SOURCE: Dep. Bacterial Diseases, Walter Reed Army Inst. Res., Washington, DC, 20307-5100, USA
SOURCE: Journal of Experimental Medicine (1994), 180(3), 1037-46
CODEN: JEMEAV; ISSN: 0022-1007
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The hepatitis B **virus** (HBV) nucleocapsid antigen (HBcAg) was investigated as a carrier moiety for the immunodominant circumsporozoite (CS) protein repeat epitopes of Plasmodium falciparum and the rodent malaria agent P. berghei. For this purpose hybrid genes coding for [NANP]4 (C75CS2) or [DP4NPN]2 (C75CS1) as internal inserts in HBcAg (between amino acids 75 and 81) were constructed and expressed in recombinant Salmonella typhimurium. The resulting hybrid HBcAg-CS polypeptides purified from S. typhimurium were particulate and displayed CS and HBc antigenicity, however, the HBc antigenicity was reduced compared to native recombinant HBcAg. Immunization of several mouse strains with HBcAg-CS1 and HBcAg-CS2 particles resulted in high titer, P. berghei- or P. falciparum-specific anti-CS antibodies representing all murine IgG isotypes. The possible influence of **carrier**-specific immunosuppression was examined, and preexisting immunity to HBcAg did not affect the immunogenicity of the CS epitopes within HBcAg-CS1 **particles**. Similarly, the choice of adjuvant did not alter the immunogenicity of HBcAg-CS hybrid particles. Immunization in complete or incomplete Freund's adjuvant or alum resulted in equivalent anti-HBc and anti-CS humoral responses. Examns. of T cell recognition of HBcAg-CS particles revealed that HBcAg-specific T cells were universally primed and CS-specific T cells were primed if the insert contained a CS-specific T cells recognition site. Thus, the internal site in HBcAg is permissive for the inclusion of heterologous pathogen-specific T as well as B cell epitopes. Most importantly, 90 and 100% of BALB/c mice immunized with HBcAg-CS1 particles were protected against a P. berghei challenge infection in 2 independent expts. Therefore, hybrid HBcAg-CS particles may represent a useful approach for future malaria vaccine development.

L7 ANSWER 50 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:493517 CAPLUS
DOCUMENT NUMBER: 119:93517
TITLE: Hybrid protein with Plasmodium CS protein sequence and hepatitis B surface antigen sequence, and use for vaccine against malaria
INVENTOR(S): De Wilde, Michel; Cohen, Joseph
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9310152	A1	19930527	WO 1992-EP2591		19921111
W: AU, CA, JP, KR, US					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE					
AU 9229278	A1	19930615	AU 1992-29278		19921111
EP 614465	A1	19940914	EP 1992-923486		19921111
EP 614465	B1	19990317			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE					
JP 07501213	T2	19950209	JP 1992-508957		19921111
AT 177755	E	19990415	AT 1992-923486		19921111
ES 2129461	T3	19990616	ES 1992-923486		19921111
CA 2123612	C	20020625	CA 1992-2123612		19921111
ZA 9208770	A	19940513	ZA 1992-8770		19921113
US 5928902	A	19990727	US 1996-760797		19961204
AU 9714717	A1	19970612	AU 1997-14717		19970214
AU 712409	B2	19991104			
US 6169171	B1	20010102	US 1997-932929		19970918
HK 1012405	A1	20000505	HK 1998-113572		19981216
PRIORITY APPLN. INFO.:			GB 1991-24390	A	19911116
			US 1992-842694	A	19920227
			WO 1992-EP2591	A	19921111
			US 1995-442612	B1	19950517
			US 1996-663371	B1	19960613

ABSTRACT:
Hybrid proteins (RTS and RTS*) are disclosed which include a portion of the CS protein of P. falciparum and of the surface antigen of hepatitis B ***virus*** (HBsAg). The RTS hybrid consists of (1) a Met residue derived from the Saccharomyces cerevisiae TDH3 gene sequence; (2) a Met-Ala-Pro sequence; (3) a P. falciparum CS protein fragment; (4) an Arg residue; (5) a carboxyl-terminal tetrapeptide sequence (Pro-Val-Thr-Asn) of hepatitis B pre-S2 protein; and (6) hepatitis B S-protein sequence. Also disclosed is a mixed multimeric lipoprotein particle containing the hybrid protein and HBsAg. The hybrid proteins and particles are useful for anti-malaria vaccines. Expression cassette construction is described, and amino acid sequences (and corresponding nucleotide sequences) are included. (RTS,S) lipoprotein **particles** induced, both in mice and monkeys, a high antibody response directed against the repeat and nonrepeat CS epitopes and against the S protein of the HBsAg ***carrier.*** The antibodies elicited in the 2 animal species effectively prevented invasion of cultured human hepatoma cells by P. falciparum sporozoites.

L7 ANSWER 51 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:493231 CAPLUS
DOCUMENT NUMBER: 119:93231
TITLE: Hybrid human immunodeficiency **virus** Gag **particles** as an antigen **carrier** system: Induction of cytotoxic T-cell and humoral responses by a Gag:V3 fusion
AUTHOR(S): Griffiths, Joanne C.; Harris, Stephen J.; Layton, Guy T.; Berrie, Eleanor L.; French, Timothy J.; Burns, Nigel R.; Adams, Sally E.; Kingsman, Alan J.
CORPORATE SOURCE: Br. Bio-technol. Ltd., Cowley/Oxford, OX4 5LY, UK
SOURCE: Journal of Virology (1993), 67(6), 3191-8
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
In attempts to increase the immunogenicity of recombinant antigens, a number of

particulate antigen presentation systems have been developed. In this study, human immunodeficiency **virus** Gag **particles** were used as ***carriers*** for the human immunodeficiency **virus** envelope V3 region. Gag:V3 fusion proteins were expressed from baculovirus expression ***vectors*** ; they migrated to the insect cell membrane and budded from the cells as hybrid particles. An immunization study carried out with rats showed that the particles elicited a strong anti-Gag antibody response and a weak antibody response to the V3 region. A strong anti-V3 cytolytic T-cell response was elicited in immunized mice. These data show that retroviral Gag particles can be used as antigen presentation vehicles.

L7 ANSWER 52 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:208677 CAPLUS
DOCUMENT NUMBER: 116:208677
TITLE: Direct use of λ phage particles for DNA transfection
AUTHOR(S): Ishiura, Masahiro
CORPORATE SOURCE: Natl. Inst. Basic Biol., Okazaki, Japan
SOURCE: Methods in Molecular Biology (Totowa, NJ, United States) (1991), 7(Gene Transfer Expression Protocols), 63-80
CODEN: MMBIED; ISSN: 1064-3745
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review with 29 refs. describing an efficient procedure for transferring mammalian genes that have been cloned in a λ phage **vector** or in a cosmid **vector**. In this procedure, λ phage particles that contain recombinant phage DNA or recombinant cosmid DNA are copptd. with calcium phosphate and applied to recipient cells. It is not necessary to extract and purify DNA from recombinant phages. Once isolated, phage particles that harbor a specific gene are directly transferred into the cells. The efficiency of gene transfer (namely, the number of transformant colonies/λ phage ***particle*** /106 recipient cells) by this procedure is very high (10-5), using small amts. of phage **particles** without addnl. **carrier** DNA. Furthermore, once established, the transformed cells obtained by the procedure are extremely stable in the absence of selective drugs. Therefore, this procedure is particularly attractive in obtaining stably transformed cells that carry low copy nos. of a transferred gene with long flanking sequences without addnl. carrier DNA sequences.

L7 ANSWER 53 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1988:436262 CAPLUS
DOCUMENT NUMBER: 109:36262
TITLE: Hepatitis B vaccine produced in yeast
AUTHOR(S): Bitter, Grant A.; Egan, Kevin M.; Burnette, W. Neal; Samal, Babru; Fieschko, John C.; Peterson, Darrell L.; Downing, Michael R.; Wypych, Jette; Langley, Keith E.
CORPORATE SOURCE: Amgen, Thousand Oaks, CA, 91320, USA
SOURCE: Journal of Medical Virology (1988), 25(2), 123-40
CODEN: JMVIDB; ISSN: 0146-6615
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A gene encoding the 226 amino acid hepatitis B surface antigen (HBsAg), subtype adw, was cloned into a generalized **vector** for the expression of heterologous genes in Saccharomyces cerevisiae. The 5' end of the genomic HBsAg gene was replaced with a chemical synthesized DNA segment that conserved the amino acid sequence of the protein but utilized DNA sequences that optimize translation initiation in yeast. High-cell-d. fermns. of laboratory strains of S. cerevisiae were developed in which HBsAg production increases linearly with respect to cell mass. The HBsAg is present as a lipoprotein particle in cell lysates

and was purified to homogeneity. The evidence presented indicates that the HBsAg particles may be formed during lysis of the yeast cells. The purified HBsAg **particles** have a morphol. similar to that of the 22 nm ***particles*** present in the serum of human chronic **carriers** of hepatitis B. The reactivity of the yeast-derived HBsAg particles with a series of monoclonal antibodies is essentially identical to that of human plasma HBsAg. By this anal., therefore, the structure of the HBsAg protein is similar in yeast and in human particles. The purified yeast HBsAg particles were formulated with alum adjuvant and subsequently were shown to confer immunity in chimpanzees to challenge with 2 heterologous serotypes (adr, ayw) of hepatitis B **virus**.

L7 ANSWER 54 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1988:210107 CAPLUS
DOCUMENT NUMBER: 108:210107
TITLE: Evaluation of reconstituted Sendai **virus** envelopes as intra-articular drug **vectors**: effects on normal and experimentally arthritic rabbit knee joints
AUTHOR(S): Earl, Rupert T.; Hunneyball, Ian M.; Billett, E. Ellen; Mayer, R. John
CORPORATE SOURCE: Queen's Med. Cent., Univ. Nottingham, Nottingham, NG7 2UH, UK
SOURCE: Journal of Pharmacy and Pharmacology (1988), 40(3), 166-70
CODEN: JPPMAB; ISSN: 0022-3573
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Fusogenic vesicles reconstituted from the envelopes of Sendai **virus** ***particles*** were injected into rabbit knee joints (both normal and exptl. arthritic) to evaluate the in vivo biocompatibility of these putative drug ***carriers.*** The reconstituted Sendai **virus** envelopes (RSVE) were >80% retained within the arthritic knee joints after 24 h and studies with 125I- and fluorescein-labeled RSVE both showed association of the vesicles with the synovia of arthritic and healthy joints. However, RSVE caused inflammation after intra-articular injection, as judged by joint swelling and histol. assessment, and these effects were exacerbated by successive administrations. RSVE-entrapped methotrexate, whether free of conjugated to human serum albumin, was ineffective in preventing the irritancy of RSVE or in reducing the chronic inflammation in joints affected by exptl. induced arthritis.

L7 ANSWER 55 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:466049 CAPLUS
DOCUMENT NUMBER: 103:66049
TITLE: Cloning of the structural gene for hepatitis B **virus** surface antigen into a yeast **vector**
AUTHOR(S): Kim, K. T.; Song, K. B.; Choi, Y. C.; Rhee, S. K.; Han, M. H.
CORPORATE SOURCE: Genet. Eng. Res. Cent., KAIST, Seoul, S. Korea
SOURCE: Han'guk Saenghwa Hakhoechi (1985), 18(2), 122-8
CODEN: KBCJAK; ISSN: 0368-4881
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The structural gene of hepatitis B **virus** surface antigen (HBsAg) was cloned into a shuttle **vector** pAAR 6 which is capable of autonomous replication and selection in both the yeast Saccharomyces cerevisiae and Escherichia coli. This expression **vector** employs the 5'-flanking region of the ADC I gene as a promoter for transcription of viral surface antigen-coding sequences. After transformation of the recombinant plasmid into

yeast strains such as SHY 3, YNN 27, D 13, ATCC 38517 and ATCC 42677, expression of HBsAg gene in the host cells was observed The protein synthesized in yeast cells was similar in size, d., and shape to the 22 nm ***particles*** isolated from the plasma of human hepatitis **carriers**
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L7 ANSWER 56 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:417501 CAPLUS
DOCUMENT NUMBER: 99:17501
TITLE: Secretion of the hepatitis B **virus** surface antigen from mouse cells using an extrachromosomal eucaryotic **vector**
AUTHOR(S): Stenlund, Arne; Lamy, Didier; Moreno-Lopez, Jorge; Ahola, Harri; Pettersson, Ulf; Tiollais, Pierre
CORPORATE SOURCE: Biomed. Cent., Uppsala Univ., Uppsala, S-751 23, Swed.
SOURCE: EMBO Journal (1983), 2(5), 669-73
CODEN: EMJODG; ISSN: 0261-4189
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Recombinant DNA mols. which contained a subgenomic fragment of the hepatitis B ***virus*** (HBV) genome, the pML2 **vector**, and the bovine papillomavirus type 1 genome were constructed. The HBV fragment includes the entire transcription unit for the hepatitis B surface antigen (HBsAg). After propagation in Escherichia coli, the recombinant plasmids were cleaved with endonucleases SalI and PvuI to eliminate most of the bacterial sequences before transfection of mouse C127 cells. Foci were observed 10-14 days after transfection. Cells from selected foci were cloned, and the supernatants were assayed for the presence of HBsAg. Most of the clones tested secreted HBsAg particles into the growth medium. These **particles** appear to be similar to the 22-nm **particles** present in the serum of HBV chronic ***carriers.*** SDS-polyacrylamide gel electrophoresis revealed that the particles contained 2 polypeptides, representing the glycosylated and unglycosylated forms of the HBsAg major polypeptide. An anal. of DNA from the transformed clones revealed that they contain multiple extrachromosomal copies of the recombinant, which, however, were rearranged.

L7 ANSWER 57 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:192706 CAPLUS
DOCUMENT NUMBER: 98:192706
TITLE: A simian **virus** recombinant that directs the synthesis of hepatitis B surface antigen
INVENTOR(S): Hamer, Dean H.; Gerin, John
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: U. S. Pat. Appl., 16 pp. Avail. NTIS Order No. PAT-APPL-6-304 571
CODEN: XAXXAV
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 304571	A0	19830318	US 1981-304571	19810922
US 4442205	A	19840410		
PRIORITY APPLN. INFO.:			US 1981-304571	19810922

ABSTRACT:
The title **virus** contains .apprx.70% of the simian **virus** 40 (SV40) late gene region and 40% (1350 base pairs) of the hepatitis B ***virus*** genome (HBV) and is prepared by 1st amplifying the HBV genome by cloning in Escherichia coli plasmids. Dane **particles** containing the

3200-base-pair (bp) circular HBV genome were isolated from HBV-**carrier** sera and digested with endonuclease BamHI. The fragments were ligated to BamHI-cleaved plasmid pBR322 and cloned in E. coli. The HBV surface antigen-specifying region was separated and ligated to a BamHI-cleaved pBR322-SV40 ***vector*** plasmid and cloned in E. coli. The SV40 **vector** was double-digested with BamHI and EcoRI and cloned into pBR322. Digestion of the pBR322-SV40-HBV recombinant plasmid with HaeII gave a homogeneous preparation of 4950-bp SV-HBV recombinant mols. These mols. were then packaged into SV40 coats and propagated as virions by coinfection of monkey kidney cells with a mutant SV40 **virus** as helper. Tissue culture cells infected with these recombinant **viruses** produce a hepatitis B surface antigen which is homogeneous and has the same phys. properties, antigenic composition, and constituent polypeptides as those found in sera of hepatitis B patients. The antigen produced can be used as a standard antigen reagent for biol. studies or for vaccine production

L7 ANSWER 58 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:66425 CAPLUS
DOCUMENT NUMBER: 98:66425
TITLE: Expression of hepatitis B **virus** surface antigen gene in cultured cells by using recombinant plasmid **vectors**
AUTHOR(S): Siddiqui, Aleem
CORPORATE SOURCE: Sch. Med., Univ. Colorado, Denver, CO, 80262, USA
SOURCE: Molecular and Cellular Biology (1983), 3(1), 143-6
CODEN: MCEBD4; ISSN: 0270-7306
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The expression of the gene coding for hepatitis B surface antigen was studied with a new host-**vector** system. A subgenomic fragment of cloned hepatitis B viral DNA was inserted into the plasmid **vector** pSV010. Transfection of COS cells with the recombinant plasmid **vector** containing hepatitis sequences led to the synthesis of hepatitis B surface antigen, which was released into the culture medium in the form of 22-nm **particles** similar to those found in the sera of hepatitis **carriers**.

L7 ANSWER 59 OF 59 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1969:420868 CAPLUS
DOCUMENT NUMBER: 71:20868
TITLE: Preparation of organotropic and antiviral drugs
AUTHOR(S): Mekler, L. B.; Gorodetskii, S. I.; Osechinskii, I. V.; Shlyankevich, M. A.
CORPORATE SOURCE: Inst. Eksp. Khin. Onkol., Moscow, USSR
SOURCE: Doklady Akademii Nauk SSSR (1969), 185(6), 1359-62 [Virol]
CODEN: DANKAS; ISSN: 0002-3264
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ABSTRACT:
Using **particles** of cross-linked Sephadex G200 as the model of a microorganism or as a **carrier** surface, and influenza **virus** as the **vector**, tests were run with fluoresceinyl isothiocyanate (I) attached to equine γ-globulin as the ballast filler. This selection was made on the assumption that the given components would be readily destroyed by intracellular enzymes and the decomposition products would not be toxic to the cell. I was selected as the drug since it affords a study of packing possibility within the model organism and introduction of low and high mol. weight materials into the cell. Tests were run in the presence of glutaraldehyde and egg albumin, as well as with or without trypsin. The results showed the presence of antibodies on the surface of carriers and the maintenance in fixed antibodies of the ability to specifically react with the antigen. The carrier

containing sealed-in proteins on being treated with trypsin showed the effectiveness of sealing-in by contact with glutaraldehyde since the proteins did not diffuse into the environment under such conditions until the action of trypsin released them. This is believed to be the first example of a construction of a artifact simulating a microorganism in chemical and phys. characteristics.

=> DIS L9 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 46 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 123.17 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L9 ANSWER 1 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:412975 CAPLUS
DOCUMENT NUMBER: 140:422398
TITLE: Adjuvant acty of carrier proteins conjugated to antibodies against CD40 or CD28
INVENTOR(S): Heath, Andrew
PATENT ASSIGNEE(S): Adjuvantix Limited, UK
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041866	A1	20040521	WO 2003-GB4738	20031103

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2002-25736 A 20021105
ABSTRACT:
The author discloses an adjuvant comprising a conjugate of carrier and an antibody directed against CD28 or CD40. The adjuvant is used in a vaccine composition to immunize animals, typically but not exclusively, against T-cell independent antigens; the T-cell independent antigen itself comprising a conjugate with the above carrier. In one example, the carrier is tetanus toxoid.

L9 ANSWER 2 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:166432 CAPLUS
DOCUMENT NUMBER: 140:362842
TITLE: Sunfish amphiphiles: Conceptually new carriers for DNA delivery
AUTHOR(S): Hulst, Ron; Muizebelt, Inouk; Oosting, Peter; van der Pol, Cornelia; Wagenaar, Anno; Smisterova, Jarmila; Bulten, Erna; Driessen, Cecile; Hoekstra, Dick; Engberts, Jan B. F. N.
CORPORATE SOURCE: Physical Organic Chemistry Unit, Stratingh Institute, University of Groningen, Groningen, 9747 AG, Neth.
SOURCE: European Journal of Organic Chemistry (2004), (4),

835-849
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A conceptually new class of cationic amphiphiles, sunfish amphiphiles, designed for the delivery of genes into cells is introduced. Sunfish amphiphiles have two hydrophobic tails, connected at the 4- and the N-position to the cationic pyridinium headgroup. Two extreme morphologies visualized by backfolding and combining of both tails at one site (matching situation) or unfolding of the tails at distinct interaction sites at biol. membranes will lead to considerable differences in morphol. behavior. The underlying rationale allows controlled release by using this morphol. alteration of the sunfish/helper-lipid/DNA complex (lipoplex). The often-excellent transfection efficiencies are probably related to these morphol. changes. In addition, the sunfish amphiphiles possess low toxicities, resulting in high cell survival after internalization. The underlying rationale, design, synthesis and in vitro transfection potential are discussed in detail. Moreover, some physico-chemical characteristics of the sunfish amphiphiles have been studied.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:144515 CAPLUS
TITLE: Temperature-responsive polymeric carriers incorporating hydrophobic monomers for effective transfection in small doses
AUTHOR(S): Takeda, Naoya; Nakamura, Emiko; Yokoyama, Masayuki; Okano, Teruo
CORPORATE SOURCE: Institute of Advanced Biomedical Engineering and Science, Tokyo Women's Medical University, Shinjuku, Tokyo, 162-8666, Japan
SOURCE: Journal of Controlled Release (2004), 95(2), 343-355
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A series of thermoresponsive ternary random copolymers, poly[N-isopropylacrylamide (PIPAAm)-co-(dimethylamino)ethylmethacrylate (DMAEMA)-co-butylmethacrylate (BMA)], was synthesized and their in vitro gene transfection efficiency in cell culture was evaluated. A control copolymer containing 20 mol% DMAEMA units, IP-20D (mole ratio of IPAAm/DMAEMA/BMA=80/20/0 in feed, no BMA units) was inert in transfection. In contrast, copolymer IP-20D-10B (IPAAm/DMAEMA/BMA=70/20/10 in feed) effectively transfected ***plasmid*** DNA into COS-1 cell cultures even under small dosing conditions of 0.1 μg of **plasmid** DNA per well in a 96-well plate, suggesting that incorporation of the appropriate amount of hydrophobic unit is crucial to transfection efficiency. Gene expression was much more significant when transfected by the IP-20D-10B carrier in comparison with control homopolymer poly-DMAEMA, and almost equal to that of the highly competent lipid carrier, LipofectAMINE PLUS. Furthermore, the transfection efficiency of IP-20D-10B is altered in a thermally responsive manner. By temporarily lowering the cell culture incubation temperature to 20 °C in the posttransfection period, gene expression doubled over that for incubation temperature at 37 °C. The DNA EtBr intercalation assay suggested that DNA affinity for IP-20D-10B is decreased by lowering incubation temperature, implying that the thermally regulated gene expression could provide more efficient DNA release from the polymeric carrier.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:60544 CAPLUS
DOCUMENT NUMBER: 140:144682
TITLE: Molecular antigen arrays comprising AP205 virus-like particle and antigen for prevention and treatment of cancer, drug addiction, poisoning, infection, and allergy
INVENTOR(S): Bachmann, Martin F.; Tissot, Alain; Pumpens, Paul; Cielens, Indulis; Renhofa, Regina
PATENT ASSIGNEE(S): Cytos Biotechnology AG, Switz.
SOURCE: PCT Int. Appl., 170 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007538	A2	20040122	WO 2003-EP7572	20030714
WO 2004007538	A3	20040304		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004076611	A1	20040422	US 2003-617876	20030714
PRIORITY APPLN. INFO.:			US 2002-396126P P	20020717

ABSTRACT:
The present invention provides a composition comprising an AP205 virus like particle (VLP) and an antigen. The invention also provides a process for producing an antigen or antigenic determinant bound to AP205 VLP. AP205 VLP bound to an antigen is useful in the production of compns. for inducing immune responses that are useful for the prevention or treatment of diseases, disorders or conditions including infectious diseases, allergies, cancer, drug addiction, poisoning and to efficiently induce self-specific immune responses, in particular antibody responses.

L9 ANSWER 5 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:985322 CAPLUS
DOCUMENT NUMBER: 140:223062
TITLE: CNS gene transfer mediated by a novel controlled release system based on DNA complexes of degradable polycation PPE-EA: a comparison with polyethylenimine/DNA complexes
AUTHOR(S): Li, Y.; Wang, J.; Lee, C. G. L.; Wang, C. Y.; Gao, S. J.; Tang, G. P.; Ma, Y. X.; Yu, H.; Mao, H.-Q.; Leong, K. W.; Wang, S.
CORPORATE SOURCE: Institute of Bioengineering and Nanotechnology, Singapore, 117602, Singapore
SOURCE: Gene Therapy (2004), 11(1), 109-114
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Nonviral gene delivery systems based upon polycation/**plasmid** DNA

complexes are quickly gaining recognition as an alternative to viral gene ***vectors*** for their potential in avoiding immunogenicity and toxicity problems inherent in viral systems. We investigated in this study the feasibility of using a controlled release system based on DNA complexed with a recently developed polymeric gene carrier, poly(2-aminoethyl propylene phosphate) (PPE-EA), to achieve gene transfer in the brain. A unique feature of this gene delivery system is the biodegradability of PPE-EA, which can provide a sustained release of DNA at different rates depending on the charge ratio of the polymer to DNA. PPE-EA/DNA complexes, naked DNA, and DNA complexed with polyethylenimine (PEI), a nondegradable cationic polymer known to be an effective gene carrier, were injected intracisternally into the mouse cerebrospinal fluid. Transgene expression mediated by naked DNA was mainly detected in the brain stem, a region close to the injection site. With either PPE-EA or PEI as a carrier, higher levels of gene expression could be detected in the cerebral cortex, basal ganglia, and diencephalons. Transgene expression in the brain mediated by PPE-EA/DNA complexes at an N/P ratio of 2 persisted for at least 4 wk, with a significant higher level than that produced by either naked **plasmid** DNA or PEI/DNA at the 4-wk time point. Furthermore, PPE-EA displayed much lower toxicity in cultured neural cells as compared to PEI and did not cause detectable pathol. changes in the central nervous system (CNS). The results established the potential of PPE-EA as a new and biocompatible gene carrier to achieve sustained gene expression in the CNS.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:971924 CAPLUS
DOCUMENT NUMBER: 140:13698
TITLE: Delivery of substance to target sites using multilayer particles comprising charge switch materials
INVENTOR(S): Harper, Garry Robert; Cooper, Paula; Baker, Matthew John
PATENT ASSIGNEE(S): Dna Research Innovations Limited, UK
SOURCE: PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101494	A1	20031211	WO 2003-GB2417	20030602

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2002-12826 A 20020531
ABSTRACT:
Materials and method are disclose for delivering a desired substance to a target site, using a layered carrier in which the carrier and the substance together form at least three layers which associate by ionic interaction at the first pH, where at least one layer comprises a charge switch material which comprises an ionizable group and which has a pos. charge at a first pH and a charge which is less pos., neutral or neg. at a second pH, at least one layer comprises a polyionic polymer which is neg. charged at the first pH and at

least one layer comprises the desired substance. Preferred carriers are based on the charge switch material poly Bis-Tris and the polyionic polymer polyacrylic acid. The desired substance is selected from a nucleic acid, pharmaceutically active compound, protein, carbohydrate, growth factor, hormone, enzyme, vaccine, cell, cell component, virus, fertilizer, pesticide, insecticide, herbicide, fungicide, vitamin, feed supplement, imaging agent, dye, chelating agent, cosmetic, paint, detergent, lipid, food supplement and neutraceutical.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:767017 CAPLUS
DOCUMENT NUMBER: 140:169496
TITLE: Multifunctional nanorods for gene delivery
AUTHOR(S): Salem, Aliasger K.; Searson, Peter C.; Leong, Kam W.
CORPORATE SOURCE: Department of Biomedical Engineering, Johns Hopkins School of Medicine, Baltimore, MD, 21205, USA
SOURCE: Nature Materials (2003), 2(10), 668-671
CODEN: NMAACR; ISSN: 1476-1122
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The goal of gene therapy is to introduce foreign genes into somatic cells to supplement defective genes or provide addnl. biol. functions, and can be achieved using either viral or synthetic non-viral delivery systems. Compared with viral **vectors**, synthetic gene-delivery systems, such as liposomes and polymers, offer several advantages including ease of production and reduced risk of cytotoxicity and immunogenicity, but their use has been limited by the relatively low transfection efficiency. This problem mainly stems from the difficulty in controlling their properties at the nanoscale. Synthetic inorg. gene **carriers** have received limited attention in the gene-therapy community, the only notable example being gold nanoparticles with surface-immobilized DNA applied to intradermal genetic immunization by ***particle*** bombardment. Here we present a non-viral gene-delivery system based on multisegment bimetallic nanorods that can simultaneously bind compacted DNA **plasmids** and targeting ligands in a spatially defined manner. This approach allows precise control of composition, size and multifunctionality of the gene-delivery system. Transfection expts. performed in vitro and in vivo provide promising results that suggest potential in genetic vaccination applications.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:741074 CAPLUS
DOCUMENT NUMBER: 140:276013
TITLE: Pluronic-grafted poly(L-lysine) as a new synthetic gene carrier
AUTHOR(S): Jeon, Eunjung; Kim, Hee-Doo; Kim, Jin-Seok
CORPORATE SOURCE: College of Pharmacy, Sookmyung Women's University, Seoul, 140-742, S. Korea
SOURCE: Journal of Biomedical Materials Research, Part A (2003), 66A(4), 854-859
CODEN: JBMRCH
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Genes are attractive candidates as therapeutic agents, and the development of safe and effective gene carriers is essential for the success of human gene

therapy. To develop a gene delivery **vector** that shows low cytotoxicity and high efficiency, we synthesized poly(L-lysine)-g-Pluronic by conjugating poly(L-lysine) (PLL) to Pluronic, which is partially functionalized with p-nitrophenyl carbonate groups, and evaluated for its efficiency as a possible nonviral gene carrier candidate. Structural anal. of synthesized polymer was performed by using 1H-NMR. Gel retardation assay, ζ potential and size measurement confirmed that the new gene carrier made a compact complex with **plasmid** DNA. PCMV-β-gal was used as a reporter gene, and the in vitro transfection efficiency was measured in HeLa cells by using the o-nitrophenyl-β-D-galactopyranoside assay. The highest transfection efficiency among those tested was achieved at the 1:1 weight ratio of polymer/DNA, and a 3-fold increase in transfection efficiency was achieved by treatment of a lysosomotropic agent, chloroquine. Compared with unmodified PLL, PLL-g-Pluronic showed about 2-fold increase in transfection efficiency with similar cytotoxicity specifically at the 1:1 weight ratio of polymer/DNA.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:242184 CAPLUS
DOCUMENT NUMBER: 138:285995
TITLE: Packaging of immunostimulatory substances and antigens into virus-like particles for use as vaccines against cancer, autoimmune disease, allergy and viral infection
INVENTOR(S): Maurer, Patrick; Tissot, Alain; Schwarz, Katrin; Meijerink, Edwin; Lipowsky, Gerad; Pumpens, Paul; Cielens, Indulis; Renhofa, Regina; Bachmann, Martin F.; Storni, Tazio
PATENT ASSIGNEE(S): Cytos Biotechnology A.-G., Switz.
SOURCE: PCT Int. Appl., 322 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003024481	A2	20030327	WO 2002-IB4132		20020916
WO 2003024481	A3	20040603			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
US 2003099668	A1	20030529	US 2002-244065		20020916
PRIORITY APPLN. INFO.:			US 2001-318994P	P	20010914
			US 2002-374145P	P	20020422

ABSTRACT:
The invention relates to the finding that virus-like particles (VLPs) can be loaded with immunostimulatory substances, in particular with DNA oligonucleotides containing non-methylated C and G (CpGs). Such CpG-VLPs are dramatically more immunogenic than their CpG-free counterparts and induce enhanced B and T cell responses. The immune response against antigens optionally coupled, fused or attached otherwise to the VLPs is similarly enhanced as the immune response against the VLP itself. In addition, the T cell

responses against both the VLPs and antigens are especially directed to the Th1 type.
Antigens attached to CpG-loaded VLPs may therefore be ideal vaccines for prophylactic or therapeutic vaccination against allergies, tumors and other self-mols. and chronic viral diseases.

L9 ANSWER 10 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:216515 CAPLUS
DOCUMENT NUMBER: 139:138535
TITLE: Water-soluble lipopolymer as an efficient carrier for gene delivery to myocardium
AUTHOR(S): Lee, M.; Rentz, J.; Han, S-O.; Bull, D. A.; Kim, S. W.
CORPORATE SOURCE: Dep. Pharm. Pharm. Chem., Cent. Controlled Chem. Del., Univ. Utah, USA
SOURCE: Gene Therapy (2003), 10(7), 585-593
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Water-soluble lipopolymer (WSLP), which consisted of polyethylenimine (PEI, 1800 Da) and cholesterol, was characterized as a gene carrier to smooth muscle cells and myocardium. Acid-base titration showed that WSLP had a proton-buffering effect. The size of WSLP/**plasmid** DNA (pDNA) complex was around 70 nm. WSLP/pDNA complex was transfected to A7R5 cells, a smooth muscle cell line. WSLP showed the highest transfection at a 40/1 N/P ratio. WSLP has higher transfection efficiency than PEI (1800 and 25 000 Da), SuperFect, and lipofectamine. In addition, WSLP has less cytotoxicity than PEI (25 000 Da), SuperFect, and lipofectamine. Since WSLP has cholesterol moiety, it may utilize cellular cholesterol uptake pathway, in which low-d. lipoprotein (LDL) is involved. An inhibition study with free cholesterol or low-d. lipoprotein (LDL) showed that transfection was inhibited by cholesterol or LDL, suggesting that WSLP/pDNA complex is transfected to the cells through the cholesterol uptake pathway. To evaluate the transfection efficiency to myocardium, WSLP/pDNA complex was injected into the rabbit myocardium. WSLP showed higher transfection than PEI and naked pDNA. WSLP expressed the transgene for more than 2 wk. In conclusion, WSLP is an efficient carrier for local gene transfection to myocardium, and useful in in vivo gene therapy.Gene Therapy (2003) 10, 585-593.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:109866 CAPLUS
DOCUMENT NUMBER: 138:298815
TITLE: Ballistic method of sunflower (Helianthus annuus l) transgenic plant preparing
INVENTOR(S): Gaponenko, A. K.
PATENT ASSIGNEE(S): Russia
SOURCE: Russ., No pp. given
CODEN: RUXXE7
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2193066	C1	20021120	RU 2001-129129	20011030
PRIORITY APPLN. INFO.:			RU 2001-129129	20011030

ABSTRACT:
The invention relates to a method for preparing sunflower transgenic plants there

are transformed with exogenous DNA inserted in vegetable cells on solid ***carrier*** **particles**. Then sprouts are regenerated from cells. The exogenous genes carry resistance to antibiotics or herbicides. The use of promoter RTL2 for gene expression determining resistance to hygromycin and selection of transformed of cells in liquid phase ensure to obtain high percent of sunflower transformants.

L9 ANSWER 12 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:906493 CAPLUS
DOCUMENT NUMBER: 138:1072
TITLE: Replicons derived from Mengo virus genomes useful for the production of heterologous proteins in mammalian cells and uses as vaccines
INVENTOR(S): Escriou, Nicolas; Van Der Werf, Sylvie; Vignuzzi, Marco; Gerbaud, Sylvie
PATENT ASSIGNEE(S): Institut Pasteur, Fr.
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002095023	A2	20021128	WO 2002-IB2810	20020523
WO 2002095023	A3	20030508		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003077251	A1	20030424	US 2002-152040	20020522
EP 1390517	A2	20040225	EP 2002-743559	20020523
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2001-292515P P 20010523
WO 2002-IB2810 W 20020523

ABSTRACT:
The present invention relates to replicons or self-replicating RNA mols., derived from the genome of cardioviruses and aphtoviruses, which can be used to express heterologous proteins in animal cells. When injected in an animal host, for example in the form of naked RNA, these replicons permit the translation of the encoded heterologous protein. If the encoded heterologous protein is a foreign antigen, these replicons induce an immune response against the encoded heterologous protein. The invention uses cardiovirus and aphtovirus genomes to construct these replicons. The invention demonstrates that these replicons, when injected as naked RNA, can induce immune responses against a replicon-encoded heterologous protein in an animal recipient without the help of any kind of carrier or adjuvant.

L9 ANSWER 13 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:809081 CAPLUS
DOCUMENT NUMBER: 139:26411
TITLE: Virus-like particles containing cytokine **plasmid** DNA
AUTHOR(S): Oh, Yu-Kyoung; Son, Tae-Jong; Sin, Kwang-Sook; Kang,

Min-Jeong; Kim, Jung Mogg; Kim, Nam Keun; Ko, Jung Jae; Kim, Chong-Kook
CORPORATE SOURCE: College of Medicine, Pochon CHA University, Pochon, Kyonggi-do, 487-800, S. Korea
SOURCE: Yakche Hakhoechi (2001), 31(3), 185-190
CODEN: YAHAEX; ISSN: 0259-2347
PUBLISHER: Korean Society of Pharmaceutics
DOCUMENT TYPE: Journal
LANGUAGE: Korean
ABSTRACT:
Human papillomavirus (HPV) infection is known to cause cervical cancers. Human papillomavirus-like particles (VLP) have been studied as preventive vaccines of cervical cancers. To develop VLP as a therapeutic gene **carrier**, we studied the method to encapsulate cytokine genes in virus-like ***particles.*** HPV type 16 capsid L1 genes were amplified by polymerase chain reaction and cloned into T **vector**. L1 gene was then inserted into baculovirus transfer **vector**. The clone of baculovirus encoding L1 gene was isolated and used to express L1 protein in Sf 21 insect cells. VLP were purified by CsCl d. gradient and ultracentrifugation. VLP were disassembled to capsomer units by treatment of a reducing agent. Given that interleukin-2 (IL-2) genes have been used in anticancer gene therapy and as a mol. adjuvant, IL-2 cytokine **plasmids** were chosen as a model gene. IL-2 **plasmids** were incubated with the disassembled capsomer suspension. To reassemble the particles, the mixture of capsomers and cytokine ***plasmids*** was dialyzed. The disassembly and reassembly of VLP were confirmed by transmission electron microscopy. The entrapment of cytokine ***plasmids*** in reassembled VLP was tested by the stability of ***plasmids*** against DNase I. After treatment of reassembled virus-like particles with DNase I, discrete IL-2 DNA band was observed Our results indicate that IL-2 cytokine **plasmid** (3.5 kb size) can be encapsulated in the virus-like particles, suggesting the potential of VLP as a gene delivery system. Moreover, VLP containing the adjuvant cytokine **plasmids** might function as more effective subunit vaccines.

L9 ANSWER 14 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:691729 CAPLUS
DOCUMENT NUMBER: 138:83870
TITLE: A new pinpoint gene delivery system using genetically engineered hepatitis B virus envelope L particles
AUTHOR(S): Kuroda, Syun'ichi; Okajima, Toshihide; Tanizawa, Katsuyuki
CORPORATE SOURCE: Institute of Scientific and Industrial Research, Osaka University, Japan
SOURCE: Materials Integration (2002), 15(7), 12-17
CODEN: MINTFB; ISSN: 1344-7858
PUBLISHER: Ti, Ai, Shi
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
ABSTRACT:
A review. Gene therapy is recognized as one of the most promising cures for cancer. Many attempts using virus **vectors** have been made for delivering genes to various cancer cells in human. While these gene therapies have shown noticeable efficacy, it has turned out that nonspecific introduction of genes into undesired cells and organs causes deleterious side effects. More importantly, the virus **vector**-derived DNA. may induce unexpected effects on human. Hepatitis B virus (HBV) is a human liver-specific DNA virus, whose genome harbors three overlapping envelope (env) genes in a single open reading frame, encoding S, M (pre-S2 + S), and L (pre-S1 + pre-S2 + S) proteins. In the last decade, the recombinant HBV env S and/or proteins were produced in yeast cells as particles and used as the immunogen for the new generation HB vaccines that were proven to be safely applicable to human. Recently, the pre-S1 peptide of L protein was also shown to possess the specific receptor for human liver cells, which is crucial for the infectivity

of HBV. We previously succeeded overprodn. of the HBV env L particles in yeast cells (up to 42% of the total soluble protein). In the present studies, the L particles have been purified, characterized, and examined for the applicability to the gene delivery system. By AFM observation and sedimentation equilibrium, about 110 mols. of L proteins are assembled into a lipid vesicle to form a spherical particle (500 nm in diameter). To examine the L **particles** as gene **carriers**, a mammalian expression **plasmid** for GFP (green fluorescence protein) was incorporated into L **particles** by electroporation. The L particles (1μg) containing 8 ng of the **plasmid** were added to the culture medium of human hepatoma HepG2 cells (about 1 + 105 cells). After two days, more than 90% of the HepG2 cells expressed GFP, while the control non-human liver cells did not. Then, the nude mice transplanted with human hepatoma HuH-7 cells and human colon cancer WiDr cells were injected i.p. with the L particles (10 μg) containing 2.5 μg of the ***plasmid.*** Two weeks later, the fluorescence was observed specifically in the HuH-7 cells, but neither in the WiDr cells nor in the liver, spleen, kidney, and intestine of the mice. Because the L particle is an empty vesicle containing no viral DNA, it can be used as a safe and efficient **vector** for human liver-specific gene transfer. We are now evaluating the effectiveness of L particles as the novel drug delivery system, together with the genetically engineered L particles that can be applied for the pinpoint gene/drug delivery system to different tissues.

L9 ANSWER 15 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:676926 CAPLUS
DOCUMENT NUMBER: 139:57747
TITLE: New polyphosphoramidate with a spermidine side chain as a gene carrier
AUTHOR(S): Wang, Jun; Zhang, Peng-Chi; Lu, Hong-Fang; Ma, Nan; Wang, Shu; Mao, Hai-Quan; Leong, Kam W.
CORPORATE SOURCE: Tissue and Therapeutic Engineering Laboratory, Johns Hopkins Singapore Biomedical Centre, Singapore, 117597, Singapore
SOURCE: Journal of Controlled Release (2002), 83(1), 157-168
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A new cationic polymer (PPA-SP), polyphosphoramidate bearing spermidine side chain, was prepared as a non-viral **vector** for gene delivery. PPA-SP was synthesized from poly(1,2-propylene H-phosphonate) by the Atherton-Todd reaction. The weight average mol. weight of PPA-SP was 3.44+104 with a number average d.p. of 90, as determined by GPC/LS/RI method. The average net pos. charge per polymer chain was 102. PPA-SP was able to condense **plasmid** DNA efficiently and formed complexes at an N/P ratio (free amino groups in polymer to phosphate groups in DNA) of 2 and above, as determined by agarose gel electrophoresis. This new gene carrier offered significant protection to DNA against nuclease degradation at N/P ratios above 2, and showed lower cytotoxicity than PLL and PEI in cell culture. The LD50 of PPA-SP was 85 μg/mL in COS-7 cells, in contrast to 20 and 42 μg/mL for PLL and PEI, resp. The complexes prepared in saline at N/P ratios of 5.apprx.10 had an average size of 250 nm and zeta-potential of 26 mV. PPA-SP mediated efficient gene transfection in a number of cell lines, and the transfection protocol was optimized in HEK293 cells using a luciferase ***plasmid*** as a marker gene. Gene expression mediated by PPA-SP was greatly enhanced when chloroquine was used in conjunction at a concentration of 100 μM. Under the optimized condition, PPA-SP/DNA complexes yield a luciferase expression level closed to PEI/DNA complexes or Transfast mediated transfection. In a non-invasive CNS gene delivery model, PPA-SP/DNA complexes yielded comparable bcl-2 expression as PEI/DNA complexes in mouse brain stem following injection of the complexes in the tongue.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:643916 CAPLUS
DOCUMENT NUMBER: 138:390679
TITLE: Evaluation of cationic solid lipid microparticles as synthetic carriers for the targeted delivery of macromolecules to phagocytic antigen-presenting cells
AUTHOR(S): Erni, Corinne; Suard, Catherine; Freitas, Sergio; Dreher, Donatus; Merkle, Hans P.; Walter, Elke
CORPORATE SOURCE: Drug Formulation & Delivery, Department of Applied Biosciences, Swiss Federal Institute of Technology Zurich (ETH), Zurich, 8057, Switz.
SOURCE: Biomaterials (2002), 23(23), 4667-4676
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Biodegradable microparticles represent a promising carrier system for the efficient delivery of therapeutic macromols. to phagocytic professional antigen-presenting cells (APC). Solid lipid microparticles (SLM) consisting of a tripalmitin matrix were prepared using a novel micromixer-based solvent extraction process. A pos. surface charge was introduced by the incorporation of cationic lipids into the formulation. All obtained SLM were efficiently phagocytosed by primary macrophages in vitro. Complete intracellular degradation was observed already
within 24 h, making SLM a suitable carrier for the immediate delivery of therapeutics to APC. Cationic SLM adsorbed **plasmid** DNA and bovine serum albumin (BSA) used as a model protein, and triggered the cellular internalization of the macromols. by phagocytic macrophages. Surprisingly, the cationic SLM also triggered the internalization of these mols. by non-phagocytic 293 cells. This was probably due to the detachment of nanocomplexes formed of cationic lipid and DNA or BSA, resp., from the surface of DNA- or BSA-loaded SLM and their subsequent uptake into the cells. Transfection efficiency of the DNA-loaded SLM was most pronounced in non-phagocytic cells and was not detected in the macrophage cell line or in primary macrophages. Our further studies revealed that cytotoxic effects of cationic SLM were more pronounced in the phagocytic cells, which could be explained by the very rapid uptake and degradation of the cationic SLM in these cells. In conclusion, SLM may provide a new, efficient means for the immediate intracellular delivery of therapeutic macromols. into APC. Caution is warranted for cationic carriers, which may accentuate cytotoxic effects in the phagocytic cells.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:507688 CAPLUS
DOCUMENT NUMBER: 138:343684
TITLE: Poly(L-lysine)-g-poly(D,L-lactic-co-glycolic acid) micelles for low cytotoxic biodegradable gene delivery carriers
AUTHOR(S): Jeong, Ji Hoon; Park, Tae Gwan
CORPORATE SOURCE: Department of Biological Sciences, Korea Advanced Institute of Science and Technology, Taejon, 305-701, S. Korea
SOURCE: Journal of Controlled Release (2002), 82(1), 159-166
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal

LANGUAGE: English

ABSTRACT:

Poly(lactic-co-glycolic acid) (PLGA)-grafted poly(l-lysine) (PLL) (PLL-g-PLGA) was synthesized to demonstrate its micelle-forming property in an aqueous solution The micelles were used as a gene delivery carrier. The hydrodynamic diameter of PLL-g-PLGA micelles in an aqueous solution was ca. 149 nm with a narrow size distribution. Critical micelle concentration was 9.6 mg/l. The PLL-g-PLGA micelles could be used to produce compact nanoparticulate complexes with **plasmid** DNA, which could efficiently protect the complexed DNA from enzymic degradation by DNase I. The micelle/DNA complexes had highly compacted structure sized between 200-300 nm with a pos. surface charge value. The PLL-g-PLGA micelles exhibited much higher transfection efficiency with lower cytotoxicity than PLL. Here, we demonstrated that biodegradable and cationic PLL-g-PLGA micelles could be used as an effective DNA condensation carrier for gene delivery system.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 18 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:504651 CAPLUS

DOCUMENT NUMBER: 137:83640

TITLE: Transfection complexes (TransoPlex) having a reduced toxicity, higher physical stability, and a higher transfection efficiency, method for their production

INVENTOR(S): Kneuer, Carsten; Lehr, Claus-Michael; Olbrich, Carsten; Mueller, Rainer Helmut

PATENT ASSIGNEE(S): Pharmasol G.m.b.H., Germany

SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002051446	A2	20020704	WO 2001-EP15287	20011221
WO 2002051446	A3	20030605		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10065217	A1	20020718	DE 2000-10065217	20001227

PRIORITY APPLN. INFO.: DE 2000-10065217 A 20001227

ABSTRACT:

The invention relates to complexes for use in transfection that comprise the transfecting DNA and lipid particles, which consist of lipids that are solid at room temperature or of lipid mixts., which contain lipids that are solid at room temperature and lipids that are semi-solid or liquid at room temperature, whereby the lipid
particles have modifying agents on their surface. For the preparation of the complexes electrolytes are included; transfection enhancing drugs, e.g. chloroquine, monensin can be added. Thus the lipid Compritol was melted, mixed with water that contained 4% mixture of Tween 80:Span 85 = 7:3 and EQ1; the emulsion was homogenized using a high pressure device; the resulting particle size was 101 nm, zeta potential +42 mV. For complexation, the lipid particle dispersion was mixed with pCMVβ- **plasmid** in HEPES buffer (pH 7.4); the final lipid concentration was 600 μg/L lipid and 10 μg/L

plasmid. AFM detns. showed two sizes of complexes, 300-800 nm and >1 μm. Various ratios of lipid- **plasmid** complexes were produced, also with addnl. chlorquine, and used for the transfection of African Green Monkey Kidney Fibroblast-like Cos-1 cells. Cell membrane damage was measured via LDH-assay and compared with conventional polyethyleneimine (pEI) and poly-L-lysine **carriers**, ED50 was 3000 μg/mL for the lipid ***particles*** , 20 μg/mL for pEI and 10 μg/mL for poly-L-lysine.

L9 ANSWER 19 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:251844 CAPLUS
DOCUMENT NUMBER: 136:284439
TITLE: Stereocomplex polymeric carriers for drug delivery
INVENTOR(S): Domb, Abraham J.; Zehavi, Zeev
PATENT ASSIGNEE(S): Efrat Biopolymers Ltd., Israel
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6365173	B1	20020402	US 1999-231552	19990114

PRIORITY APPLN. INFO.: US 1999-231552 19990114
ABSTRACT:
A polymeric carrier for delivery of bioactive or bioreactive mols. is provided, including a stereocomplex of one or more biocompatible polymers and having incorporated on or within the complex the mols. to be delivered. In a preferred embodiment, the biocompatible stereoselective polymers are linear or branched D-PLA homo- and block-polymers, linear or branched L-PLA homo- and block-polymers, copolymers thereof, or mixts. thereof, in stereo-complexed form. In one preferred embodiment, the polymeric carrier is complexed with a complementary stereospecific bioactive mol. In other embodiments, the bioactive, or bioreactive (for example, for use in diagnostic applications), is bound to the complex by ionic, hydrogen, or other non-covalent binding reactions not involving stereocomplexation, or is phys. entrapped within the complex, either at the time of complex formation or when the polymeric material is formulated into particles, tablets, or other form for pharmaceutical application. Exemplary bioactive mols. include peptides, proteins, nucleotides, oligonucleotides, sugars, carbohydrates, and other synthetic or natural organic mols., as well as stereoselective drugs of a mol. weight of 300 daltons or higher. Examples demonstrate preparation of stereocomplexes, as well as their use for controlled and/or sustained release. Thus, disk (102 mm) and rod shape (410 mm) devices were prepared by mixing the stereocomplex powder of D-PLA and L-PLA (200 mg, Mw = 30,000) with lidocaine (20 mg) and compression molding into disks of 142 mm size. Lidocaine was released constantly for 30 days when placed in buffer solution pH 7.4 at 37°.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 20 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:71511 CAPLUS
DOCUMENT NUMBER: 137:268261
TITLE: Zwitterionic Latex **Particles** as an Effective **Carrier** for DNA
AUTHOR(S): Somasundaran, T.; Deo, Namita; Somasundaran, P.
CORPORATE SOURCE: NSF IUCR Center for Advanced Studies in Novel Surfactants, Langmuir Center for Colloid and Interfaces, Columbia University, New York, NY, 10027, USA
SOURCE: Journal of Colloid and Interface Science (2002),

246(2), 223-226
CODEN: JCISA5; ISSN: 0021-9797
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The ability of small particles to associate with DNA and to transport it to desired targets without being subjected to interferences can make them efficient vehicles for gene delivery. Keeping these requirements in mind, zwitterionic latex particles with two different functional tethers were chosen for studying their interaction with DNA as vehicle complexes. From adsorption and electrokinetic studies, it is evident that zwitterionic latex particles can have marked association with DNA. Moreover, DNA-latex complexation does not provoke undesired aggregation of latex particles. These characteristics are important for it to carry the DNA efficiently under changing media conditions. (c) 2002 Academic Press.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 21 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:798860 CAPLUS
DOCUMENT NUMBER: 136:58696
TITLE: Structural Characteristics of Size-Controlled Self-Aggregates of Deoxycholic Acid-Modified Chitosan and Their Application as a DNA Delivery Carrier
AUTHOR(S): Kim, Young Hyo; Gihm, Se Hoon; Park, Chong Rae; Lee, Kuen Yong; Kim, Tae Woo; Kwon, Ick Chan; Chung, Hesson; Jeong, Seo Young
CORPORATE SOURCE: Enviro-Polymers Design Laboratory, Hyperstructured Organic Materials Research Center (HOMRC) and School of Materials Science andEngineering, Seoul National University, Seoul, 151-744, S. Korea
SOURCE: Bioconjugate Chemistry (2001), 12(6), 932-938
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
SPrecise control of the size and structure is one critical design parameter of micellar systems for drug delivery applications. To control the size of self-aggregates, chitosan was depolymd. with various amts. of sodium nitrite, and hydrophobically modified with deoxycholic acid to form self-aggregates in aqueous media. Formation and physicochem. characteristics of size-controlled self-aggregates were investigated using dynamic light scattering, fluorescence spectroscopy, and computer simulation method. The size of self-aggregates varied in the range of 130-300 nm in diameter, and their structures were found to depend strongly on the mol. weight of chitosan ranging from 5 to 200 kDa. Due to the chain rigidity of chitosan mol., the structure of self-aggregates was suggested to be a cylindrical bamboolike structure when the mol. weight of chitosan was larger than 40 kDa, which might form a very poor spherical form of a birdnestlike structure. To explore the potential applications of self-aggregates as a gene delivery carrier, complexes between chitosan self-aggregates and **plasmid** DNA were prepared and confirmed by measuring the fluorescence intensity of ethidium bromide and electrophoresis on agarose gels. The complex formation had strong dependency on the size and structure of chitosan self-aggregates and significantly influenced the transfection efficiency of COS-1 cells (up to a factor of 10). This approach to control the size and structure of chitosan-derived self-aggregates may find a wide range of applications in gene delivery as well as general drug delivery applications.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 22 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:713434 CAPLUS
DOCUMENT NUMBER: 135:254098
TITLE: Magnetic, silanized polyvinylalcohol-based carrier materials and their use in nucleic acid isolation
INVENTOR(S): Parker, W. Jeffrey; Oster, Juergen; A Brassard, Lothar
PATENT ASSIGNEE(S): Chemagen Biopolymer-Technologie Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070831	A1	20010927	WO 2001-EP3061	20010316
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10013995	A1	20010927	DE 2000-10013995	20000322
EP 1274745	A1	20030115	EP 2001-915369	20010316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003528181	T2	20030924	JP 2001-569031	20010316
US 2003109618	A1	20030612	US 2002-239385	20021120
PRIORITY APPLN. INFO.:			DE 2000-10013995 A	20000322
			WO 2001-EP3061 W	20010316

OTHER SOURCE(S): MARPAT 135:254098
ABSTRACT:
The present invention relates to magnetic, polymeric polyvinylalc.-based carrier materials. The surface of said materials is at least partially silanized. The invention also relates to a method for silanizing the surface of such materials and to the use of the magnetic, silanized carrier materials for isolating biol. material, preferably nucleic acids.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 23 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:676624 CAPLUS
DOCUMENT NUMBER: 135:247186
TITLE: DNA vaccines against poxviruses
INVENTOR(S): Hooper, Jay W.; Schmaljohn, Alan L.; Schmaljohn, Connie S.
PATENT ASSIGNEE(S): U.S. Army Medical Research Institute of Infectious Diseases, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001066138 A2 20010913 WO 2001-US7391 20010307
WO 2001066138 A3 20020314
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 2002176871 A1 20021128 US 2001-800632 20010307
US 6562376 B2 20030513
PRIORITY APPLN. INFO.: US 2000-187608P P 20000307

ABSTRACT:
A poxvirus naked DNA vaccine which protects animals against poxvirus challenge comprising nucleic acids encoding an intracellular mature virion (IMV) and nucleic acids encoding an extracellular enveloped virion (EEV) of poxvirus is described. Poxvirus is chosen from the group consisting of variola virus, monkeypox virus, cowpox virus, orf virus, paravaccinia virus, Tana pox virus, Yaba pox virus, and Molluscum contagiosum virus. Methods of use of the vaccine and its advantages are described. For example, in mice DNA vaccination with VACV IMV immunogens L1R or A27L elicited neutralizing antibodies while DNA vaccination with VACV EEV immunogens A33R and B5R elicited non-neutralizing antibodies. DNA vaccination with L1R+A27L+A33R+B5R completely protected mice from challenge, and the lack of weight loss indicates low morbidity.

L9 ANSWER 24 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:489478 CAPLUS
DOCUMENT NUMBER: 135:103407
TITLE: Protein and cDNA of 8 kDa human signal recognition particle protein sequence homolog and therapeutic use thereof
INVENTOR(S): Mao, Yumin; Xie, Yi
PATENT ASSIGNEE(S): Shanghai Biowindow Gene Development Inc., Peop. Rep. China
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
WO 2001048009 A1 20010705 WO 2000-CN714 20001225
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CN 1301724 A 20010704 CN 1999-125388 19991227
AU 2001021466 A5 20010709 AU 2001-21466 20001225
PRIORITY APPLN. INFO.: CN 1999-125388 A 19991227
WO 2000-CN714 W 20001225

ABSTRACT:
The invention provides cDNA sequences for 8 kDa novel human protein cloned from fetal brain, and its protein sequences which have sequence homol. to signal recognition particle protein. The invention also relates to constructing signal recognition particle protein 8 gene expression **vectors** to

prepare recombinant signal recognition particle protein 8 protein using prokaryote or eukaryote cells. Methods of expressing and preparing recombinant signal recognition particle protein 8 protein and its antibody are described. Methods of using signal recognition particle protein 8 gene or protein products for the treatment of various kinds of diseases, such as cancer, blood diseases, HIV infection, immune diseases and inflammation are also disclosed.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 25 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:489448 CAPLUS
DOCUMENT NUMBER: 135:103379
TITLE: Protein and cDNA of 11 kDa human signal recognition particle subunit 54 sequence homolog and therapeutic use thereof
INVENTOR(S): Mao, Yumin; Xie, Yi
PATENT ASSIGNEE(S): Shanghai Biowindow Gene Development Inc., Peop. Rep. China
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001047979	A1	20010705	WO 2000-CN698	20001225
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CN 1301746	A	20010704	CN 1999-125793	19991227
AU 2001024991	A5	20010709	AU 2001-24991	20001225
PRIORITY APPLN. INFO.:			CN 1999-125793 A	19991227
			WO 2000-CN698 W	20001225

ABSTRACT:
The invention provides cDNA sequences for 11 kDa novel human protein cloned from fetal brain, and its protein sequences which have sequence homol. to signal recognition particle. The invention also relates to constructing signal recognition particle subunit 54 protein 11 gene expression **vectors** to prepare recombinant signal recognition particle subunit 54 protein 11 protein using prokaryote or eukaryote cells. Methods of expressing and preparing recombinant signal recognition particle subunit 54 protein 11 protein and its antibody are described. Methods of using signal recognition particle subunit 54 protein 11 gene or protein products for the treatment of various kinds of diseases, such as cancer, blood diseases, HIV infection, immune diseases and inflammation are also disclosed.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 26 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:434905 CAPLUS
DOCUMENT NUMBER: 135:37173
TITLE: Nucleic acid delivery system
INVENTOR(S): Guan, Holly
PATENT ASSIGNEE(S): Artursson, Per, Swed.

SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001041810	A2	20010614	WO 2000-EP12339	20001207
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1235597	A2	20020904	EP 2000-981347	20001207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003516365	T2	20030513	JP 2001-543154	20001207
US 2003166594	A1	20030904	US 2003-149458	20030218

PRIORITY APPLN. INFO.:

SE 1999-4475	A	19991208
US 1999-171307P	P	19991221
WO 2000-EP12339	W	20001207

ABSTRACT:
The present invention is directed to a composition and pharmaceutical prepns. for introducing nucleic acids including oligo- or poly-nucleotides into cells in a host tissue by a delivery system and a method of preparing such a composition The composition for delivery of nucleic acids comprises polymeric **carrier** ***particles*** that are essentially free of groups having a pos. elec. charge and the nucleic acids are provided essentially on the surface of the ***particles.*** The **carrier particle** is insol. in water but suitably it is able to absorb water quickly.

L9 ANSWER 27 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:360213 CAPLUS
DOCUMENT NUMBER: 134:337926
TITLE: Method using fumed metallic oxides for isolating DNA from a proteinaceous medium and kit for performing method
INVENTOR(S): Krupey, John
PATENT ASSIGNEE(S): Ligochem, Inc., USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001034844	A1	20010517	WO 2000-US31005	20001113
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1244811 A1 20021002 EP 2000-977161 20001113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: US 1999-164608P P 19991110
WO 2000-US31005 W 20001113

ABSTRACT:
A method is described for isolating DNA from a proteinaceous medium such as whole blood, Hb-containing urine or saliva. Also disclosed are test kits for practicing the method. Guanidine thiocyanate in sodium acetate pH 7.0 solution containing EDTA was added to Hb-containing and white blood cell-containing urine samples to
disrupt the cells, dissociate the DNA histone complex, and release free DNA into solution Contaminating proteins were removed by treating the chaotrope-containing urine with a water-insol. cross-linked polymeric acid, trade name ProCipitate. The DNA was captured with titanium oxide P25, the aggregate was washed, and DNA was recovered by treatment with NaOH.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 28 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:193452 CAPLUS
DOCUMENT NUMBER: 136:11004
TITLE: Polyethylenimine/arabinogalactan conjugate as a hepatocyte specific gene carrier
AUTHOR(S): Nogawa, M.; Ishihara, T.; Akaike, T.; Maruyama, A.
CORPORATE SOURCE: Department of Biomolecular Engineering Tokyo Institute of Technology, Faculty of Bioscience and Biotechnology, Yokohama, 226-8501, Japan
SOURCE: S.T.P. Pharma Sciences (2001), 11(1), 97-102
CODEN: STSSE5; ISSN: 1157-1489
PUBLISHER: Editions de Sante
DOCUMENT TYPE: Journal
LANGUAGE: English

ABSTRACT:
Polyethylenimine/arabinogalactan (PEI-AG) conjugates were prepared as a hepatocyte-specific DNA carrier. The conjugates were successfully prepared by reductive amination reaction between the reductive end of arabinogalactan (AG) and amino groups of polyethylenimine using NaBH3CN as a catalyst, regardless of the highly branched structure of AG. By changing the AG content in the feed, PEI-AG conjugates containing controlled AG contents were obtained. The conjugates, with AG contents ranging from 47 to 88 weight%, form complexes with ***plasmid*** DNA at the same polyethylenimine/DNA ratio. This indicates that AG did not severely affect the interaction between DNA and polyethylenimine moiety in the conjugates. Small DNA complexes (100-200 nm) were formed when **plasmid** DNA was mixed with PEI-AG conjugates. The complexes maintained dispersive stability in phosphate-buffered saline over a month, indicating that AG moieties contribute to the solubility of the complexes. The surface pos. charge of polyethylenimine/DNA complexes decreased with an increase in AG content. The transfection activity of polyethylenimine/DNA complexes toward HeLa or 3T3 cells (asialoglycoprotein receptors neg.) was strongly reduced by AG conjugation whereas that towards murine primary hepatocytes (asialoglycoprotein receptors pos.) was preserved. The results indicated that PEI-AG conjugates could avoid the nonspecific interaction with cells while maintaining the high-level transfection efficiency by asialoglycoprotein receptor-mediated gene expression.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 29 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:109585 CAPLUS
DOCUMENT NUMBER: 135:50960

TITLE: Chitosan-DNA nanoparticles as gene carriers: synthesis, characterization and transfection efficiency
AUTHOR(S): Mao, H.-Q.; Roy, K.; Troung-Le, V. L.; Janes, K. A.; Lin, K. Y.; Wang, Y.; August, J. T.; Leong, K. W.
CORPORATE SOURCE: Department of Biomedical Engineering, 726 Ross Building, The Johns Hopkins University School of Medicine, Baltimore, MD, 21205, USA
SOURCE: Journal of Controlled Release (2001), 70(3), 399-421
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:

Chitosan-DNA nanoparticles were prepared using a complex coacervation process. The important parameters for the nanoparticle synthesis were investigated, including the concns. of DNA, chitosan and sodium sulfate, temperature of the solns., pH of the buffer, and mol. wts. of chitosan and DNA. At an amino group to phosphate group ratio (N/P ratio) between 3 and 8 and a chitosan concentration of 100 μg/mL, the size of particles was optimized to .apprx.100-250 nm with a narrow distribution, with a composition of 35.6 and 64.4% by weight for DNA and chitosan, resp. The surface charge of these particles was slightly pos. with a zeta potential of +12 to +18 mV at pH lower than 6.0, and became nearly neutral at pH 7.2. The chitosan-DNA nanoparticles could partially protect the encapsulated **plasmid** DNA from nuclease degradation as shown by electrophoretic mobility anal. The transfection efficiency of chitosan-DNA nanoparticles was cell-type dependent. Typically, it was three to four orders of magnitude, in relative light units, higher than background level in HEK293 cells, and two to ten times lower than that achieved by Lipofectamine-DNA complexes. The presence of 10% fetal bovine serum did not interfere with their transfection ability. Chloroquine could be co-encapsulated in the nanoparticles at 5.2%, but with negligible enhancement effect despite the fact that chitosan only showed limited buffering capacity compared with PEI. The present study also developed three different schemes to conjugate transferrin or KNOB protein to the nanoparticle surface. The transferrin conjugation only yielded a maximum of four-fold increase in their transfection efficiency in HEK293 cells and HeLa cells, whereas KNOB conjugated nanoparticles could improve gene expression level in HeLa cells by 130-fold. Conjugation of PEG on the nanoparticles allowed lyophilization without aggregation, and without loss of bioactivity for at least 1 mo in storage. The clearance of the PEGylated nanoparticles in mice following i.v. administration was slower than unmodified nanoparticles at 15 min, and with higher depositions in kidney and liver. However, no difference was observed at the 1-h time point.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 30 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:553509 CAPLUS
DOCUMENT NUMBER: 133:168386
TITLE: Manufacture of therapeutic calcium phosphate particles
INVENTOR(S): Bell, Steve J. D.; Wagner-Bartak, Claus; Morcol, Tulin; He, Qing
PATENT ASSIGNEE(S): Biosante Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000046147	A2	20000810	WO 2000-US2742	20000203
WO 2000046147	A3	20001207		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000027531	A5	20000825	AU 2000-27531	20000203
EP 1150918	A2	20011107	EP 2000-905941	20000203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:		
US 1999-118355P	P	19990203
US 1999-118356P	P	19990203
US 1999-118364P	P	19990203
WO 2000-US2742	W	20000203

ABSTRACT:
Novel calcium phosphate core **particles**, methods of making them, and methods of using them as vaccine adjuvants, as cores, as **carriers** of a biol. active material, and as controlled release matrixes for biol. active material are disclosed. The core particles may have a surface modifying agent and/or biol. active material, such as antigenic material or natural immunoenhancing factor, polynucleotide material, or therapeutic proteins or peptides, partially coating the particle or impregnated therein. The core particles have a diameter between about 300 nm and about 4000 nm, more particularly between about 300 nm and about 2000 nm, and even more particularly between about 300 nm and about 1000 nm, are substantially spherical in shape, and have a substantially smooth surface. Thus, calcium phosphate was prepared by the reaction of CaCl2 with dibasic sodium phosphate. The particle size was maintained at <1000 nm. A surface modifier PEG was impregnated within the core calcium phosphate particles and contained a therapeutic protein.

L9 ANSWER 31 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2000:535019 CAPLUS
DOCUMENT NUMBER:	133:149126
TITLE:	DNA vaccines against hantavirus infections
INVENTOR(S):	Schmaljohn, Connie S.; Hooper, J. W.
PATENT ASSIGNEE(S):	U.S. Medical Research Institute of Infectious Diseases, USA
SOURCE:	PCT Int. Appl., 64 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000044406	A2	20000803	WO 2000-US1999	20000127
WO 2000044406	A3	20001116		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1146900	A2	20011024	EP 2000-908388	20000127

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

US 2002114818	A1	20020822	US 2000-491974		20000127
PRIORITY APPLN. INFO.:			US 1999-117680P	P	19990129
			WO 2000-US1999	W	20000127

ABSTRACT:
Seoul virus (SEOV) is one of four known hantaviruses causing hemorrhagic fever with renal syndrome (HFRS). Candidate naked DNA vaccines for HFRS were constructed by subcloning cDNA representing the medium (M) (encoding the G1 and G2 glycoproteins) or small (S) (encoding the nucleocapsid protein) genome segment of SEOV into the DNA expression **vector** pWRG7077. We vaccinated BALB/c mice with three doses of the M or S DNA vaccine at 4-wk intervals by either gene gun inoculation of the epidermis, or needle inoculation into the gastrocnemius muscle. Both routes of vaccination resulted in antibody responses as measured by ELISA; however, gene gun inoculation elicited a higher frequency of seroconversion, and higher levels of antibodies in individual mice. We vaccinated Syrian hamsters with the M or S construct using the gene gun and found hantavirus-specific antibodies in 5/5 and 4/5 hamsters, resp. Animals vaccinated with the M construct developed a neutralizing antibody response which was greatly enhanced in the presence of guinea pig complement. Immunized hamsters were challenged with SEOV and, after 28 days, were monitored for evidence of infection. Hamsters vaccinated with M were protected from infection, but hamsters vaccinated with S were not protected.

L9 ANSWER 32 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2000:278110 CAPLUS
DOCUMENT NUMBER:	132:289600
TITLE:	Minimal promoters and uses thereof for nucleic acid immunization and gene therapy
INVENTOR(S):	Fuller, James T.
PATENT ASSIGNEE(S):	Powderject Vaccines, Inc., USA
SOURCE:	PCT Int. Appl., 35 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2000023592	A2	20000427	WO 1999-US24694		19991019
WO 2000023592	A3	20000727			
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
EP 1123396	A2	20010816	EP 1999-960139		19991019
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002527527	T2	20020827	JP 2000-577301		19991019
AU 766005	B2	20031009	AU 2000-17073		19991019
NZ 511798	A	20040130	NZ 1999-511798		19991019
PRIORITY APPLN. INFO.:			US 1998-104871P	P	19981019
			WO 1999-US24694	W	19991019

ABSTRACT:
A promoter system which provides a better expression in mammalian cells is provided. It was found that and expression system will provide for a greatly

enhanced immune response against an encoded antigen when a promoter is used in a truncated, enhancer-less form. The enhancerless promoter sequence is referred as a minimal promoter. Reagents including a nucleic acid mol. which contains these minimal promoter sequences are also described. Methods for constructing these reagents, and methods for using these reagents are also described.

L9 ANSWER 33 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:96730 CAPLUS
DOCUMENT NUMBER: 133:115674
TITLE: Transfection complexes generated with adenovirus and polyethylenimine-condensed DNA
AUTHOR(S): Cotten, Matt; Saltik, Mediyha; Baker, Adam
CORPORATE SOURCE: Institute for Molecular Pathology, Vienna, Austria
SOURCE: Methods in Molecular Medicine (1999), 21(Adenovirus Methods and Protocols), 295-307
CODEN: MMMEFN
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A simple method of linking **plasmid** DNA to **carrier** adenovirus **particles** is described. The method uses the synthetic polycation polyethylenimine (PEI) to condense the **plasmid** DNA into a small, pos. charged complex. In addition to describing the PEI **plasmid** DNA/virus linkage method, the preparation of psoralen-inactivated carrier adenovirus is also described. Furthermore, a simple method for removing LPS from ***plasmid*** DNA is provided.

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 34 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:468575 CAPLUS
DOCUMENT NUMBER: 131:106842
TITLE: Polymeric carriers for delivery of bioactive agents
INVENTOR(S): Domb, Avraham J.; Zehavi, Zeev
PATENT ASSIGNEE(S): Efrat Biopolymers Ltd., Israel
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9936100	A2	19990722	WO 1999-IL23	19990114
WO 9936100	A3	19990923		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2283648	AA	19990722	CA 1999-2283648	19990114
AU 9918889	A1	19990802	AU 1999-18889	19990114
EP 967998	A2	20000105	EP 1999-900284	19990114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001515522	T2	20010918	JP 1999-536971	19990114

PRIORITY APPLN. INFO.: IL 1998-122933 A 19980114
WO 1999-IL23 W 19990114

ABSTRACT:
The invention provides a polymeric carrier for delivery of a bioactive or bioreactive mol., comprising a stereocomplex of at least one biocompatible stereoselective polymer and a bioactive or bioreactive mol. L-Polylactide (1 g, mol. weight 30,000) and D-polylactide (1 g, mol. weight 30,000) were added to 70 mL acetonitrile at 60°. A clear solution became turbid after 4-5 h and after 2 days at 60°, a heavy white solid precipitated After 3 days, the solution was filtered and the stereocomplex was collected and dried in vacuum over night. Methotrexate was incorporated in the above stereocomplex in the form of a powder and the mixture was compression molded to form tablets.

L9 ANSWER 35 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:405107 CAPLUS
DOCUMENT NUMBER: 131:63429
TITLE: Needle-free injection of formulated nucleic acid molecules for gene therapy in mammals
INVENTOR(S): Barry, Michael; Mumper, Russ; Smith, Lou
PATENT ASSIGNEE(S): Genemedicine, Inc., USA; Baylor College of Medicine
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9931262	A2	19990624	WO 1998-US26823	19981216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2315256	AA	19990624	CA 1998-2315256	19981216
AU 9919229	A1	19990705	AU 1999-19229	19981216
EP 1038016	A2	20000927	EP 1998-964020	19981216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2003528024	T2	20030924	JP 2000-539160	19981216

PRIORITY APPLN. INFO.: US 1997-69754P P 19971216
WO 1998-US26823 W 19981216

ABSTRACT:
A novel method is provided for delivering nucleic acid mols. through and/or to the skin of mammals by needle-free injection involving the incorporation of formulated nucleic acid mols. with devices for injecting the mols. by air, fluid and/or mech. pressure. Disclosed are compns. and methods for enhancing the administration to and uptake of nucleic acids in a mammal. The methods disclosed provide an increased immune response by allowing the uptake of formulated nucleic acid mols. by a wide variety of cell types simultaneously. Also disclosed are examples which demonstrate that the combination of formulated nucleic acid mols. and needle-free injection methods results in immune responses which are superior to those obtained by conventional means of delivery. Methods for delivery, as well as methods for formulating nucleic acid mols. with various compds., such as cationic complexing agents, polymeric and non-polymeric formulations, protective, interactive, non-condensing systems are also disclosed.

L9 ANSWER 36 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:58507 CAPLUS
DOCUMENT NUMBER: 130:181465
TITLE: Isoluble carrier-immobilized fusion protein antigen as immunological diagnostic agent
INVENTOR(S): Izumoto, Yoshitaka
PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11014627	A2	19990122	JP 1997-167111	19970624
PRIORITY APPLN. INFO.:			JP 1997-167111	19970624

ABSTRACT:
Fusion protein containing maltose-coupled Treponema surface antigen and glutathione-S-transferase is prepared by mol. cloning. The Treponema surface antigen is a 47 kDa antigenic protein, and is expressed by Escherichia coli transfected with **plasmid vector** pMAL-47K. The recombinant 47 kDa antigen is coated on insol. carrier for detecting anti-Treponema antibody in blood serum and for diagnosis of syphilis. The insol. ***carrier*** is latex **particle** of polystyrene, styrene-styrene sulfonic acid copolymer, or styrene-methacrylic acid copolymer.

L9 ANSWER 37 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:764294 CAPLUS
DOCUMENT NUMBER: 130:20573
TITLE: Tissue factor for influencing blood vessel formation
INVENTOR(S): Nawroth, Peter; Nakagawa, Katsumi; Zhang, Youming
PATENT ASSIGNEE(S): Merckle G.m.b.H., Germany
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9851321	A1	19981119	WO 1998-DE1306	19980508
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19719652	A1	19981203	DE 1997-19719652	19970509
AU 9883315	A1	19981208	AU 1998-83315	19980508
AU 746782	B2	20020502		
EP 980251	A1	20000223	EP 1998-933500	19980508
EP 980251	B1	20020821		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
JP 2001527555	T2	20011225	JP 1998-548691	19980508
AT 222501	E	20020915	AT 1998-933500	19980508
PT 980251	T	20030131	PT 1998-933500	19980508

ES 2184299	T3	20030401	ES 1998-933500		19980508
CZ 293005	B6	20040114	CZ 1999-3912		19980508
NO 9905459	A	19991108	NO 1999-5459		19991108
MX 9910214	A	20000731	MX 1999-10214		19991108
PRIORITY APPLN. INFO.:			DE 1997-19719652	A	19970509
			WO 1998-DE1278	A	19980507
			WO 1998-DE1306	W	19980508

ABSTRACT:
Tissue factor can be used to influence, especially to activate, the formation of blood vessels, above all in wound healing. It may be administered in the form of a nucleic acid, a tissue factor fragment, a mutant amino acid sequence, a fusion protein, in glycosylated or nonglycosylated form, or as an antibody to inhibit blood vessel formation. Thus, the entire translated region of the mouse tissue factor gene was integrated into the BamHI site of the multiple-cloning site of pcDNA3 under the control of the cytomegalovirus promoter to produce expression **plasmid** pcDNA3-TF. Treatment of full-thickness wounds on the backs of mice with a mixture of pcDNA3-TF and DOTAP transfection reagent resulted in formation of blood vessels in the wounds, as shown by i.v. nigrosine injection and by staining for smooth muscle cells with an antibody to α-actin.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 38 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:369669 CAPLUS
DOCUMENT NUMBER: 129:113375
TITLE: A physicochemical approach for predicting the effectiveness of peptide-based gene delivery systems for use in **plasmid**-based gene therapy
AUTHOR(S): Duguid, John G.; Li, Cynthia; Shi, Mei; Logan, Mark J.; Alila, Hector; Rolland, Alain; Tomlinson, Eric; Sparrow, James T.; Smith, Louis C.
CORPORATE SOURCE: GeneMedicine, The Woodlands, TX, 77381-4248, USA
SOURCE: Biophysical Journal (1998), 74(6), 2802-2814
CODEN: BIOJAU; ISSN: 0006-3495
PUBLISHER: Biophysical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

ABSTRACT:
Novel synthetic peptides, based on carrier peptide analogs (YKAKnWK) and an amphipathic peptide (GLFEALLELLESLWELLLEA), have been formulated with DNA ***plasmids*** to create peptide-based gene delivery systems. The carrier peptides are used to condense **plasmids** into nanoparticles with a hydrodynamic diameter (DH) ranging from 40 to 200 nm, which are sterically stable for over 100 h. Size and morphol. of the carrier peptide/**plasmid** complex have been determined by photon correlation spectroscopy (PCS) and transmission electron microscopy (TEM), resp. The amphipathic peptide is used as a pH-sensitive lytic agent to facilitate release of the **plasmid** from endosomes after endocytosis of the peptide/**plasmid** complex. Hemolysis assays have shown that the amphipathic peptide destabilizes lipid bilayers at low pH, mimicking the properties of viral fusogenic peptides. However, CD studies show that unlike the viral fusion peptides, this amphipathic peptide loses some of its α-helical structure at low pH in the presence of liposomes. The peptide-based gene delivery systems were tested for transfection efficiency in a variety of cell lines, including 14-day C2C12 mouse myotubes, using gene expression systems containing the β-galactosidase reporter gene. Transfection data demonstrate a correlation between in vitro transfection efficiency and the combination of several phys. properties of the peptide/**plasmid** complexes, including 1) DNA dose, 2) the zeta potential of the **particle**, 3) the requirement of both lytic and ***carrier*** peptides, and 4) the number of lysine residues associated with the ***carrier*** peptide. Transfection data on 14-day C2C12 myotubes utilizing the therapeutic human growth hormone gene formulated in an optimal peptide gene

delivery system show an increase in gene expression over time, with a maximum in protein levels at 96 h (.apprx.18 ng/mL).

REFERENCE COUNT: 89 THERE ARE 89 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 39 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:1560 CAPLUS
DOCUMENT NUMBER: 128:86401
TITLE: Altering the cell tropism of small RNA viruses and virus-like particles by introduction of immunoglobulin-like domains into the p71 coat protein
INVENTOR(S): Gordon, Karl Heinrich; Hanzlik, Terry Nelson
PATENT ASSIGNEE(S): Commonwealth Scientific and Industrial Research Organisation, Australia; Gordon, Karl Heinrich; Hanzlik, Terry Nelson
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9746666	A1	19971211	WO 1997-AU349		19970602
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9729446	A1	19980105	AU 1997-29446		19970602
AU 723006	B2	20000817			
EP 1015560	A1	20000705	EP 1997-923669		19970602
EP 1015560	B1	20040331			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2000511426	T2	20000905	JP 1998-500014		19970602
AT 263234	E	20040415	AT 1997-923669		19970602
US 6251654	B1	20010626	US 1999-194613		19990702
PRIORITY APPLN. INFO.:			AU 1996-234	A	19960531
			WO 1997-AU349	W	19970602

ABSTRACT:
The p71 coat proteins of small RNA viruses of insects (Tetraviridae) have a core segment with the structure of a member of the Ig superfamily that is responsible for binding to the insect midgut. The cell tropism of these viruses can therefore be altered by introducing altered Ig-like domains or other substituted tertiary structures into this core domain. Proteins of up to 30 kilodaltons can be substituted for this domain. Virus, or virus-like particles derived from, it with modified cell tropism can be used as delivery vehicles in insecticidal and medical applications. In addition, the coat protein can be modified to minimize antigenicity for therapeutic use. The Ig-like structure could be exchanged for a minimal loop (the peptide SGSGS) without affecting particle formation and RNA packaging.

L9 ANSWER 40 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:502949 CAPLUS
DOCUMENT NUMBER: 127:200710
TITLE: Polyethylenimine (PEI) is a simple, inexpensive and effective reagent for condensing and linking

plasmid DNA to adenovirus for gene delivery
AUTHOR(S): Baker, A.; Saltik, M.; Lehrmann, H.; Killisch, I.; Mautner, V.; Lamm, G.; Christofori, G.; Cotten, M.
CORPORATE SOURCE: Institute of Molecular Pathology, Vienna, 1030, Austria
SOURCE: Gene Therapy (1997), 4(8), 773-782
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Stockton
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A simple and inexpensive method of condensing and linking **plasmid** DNA to **carrier** adenovirus **particles** is described. The synthetic polycation polyethylenimine is used to condense **plasmid** DNA into pos. charged 100 nm complexes. These PEI-DNA complexes are then bound to adenovirus particles through charge interactions with neg. domains on the viral hexon. The resulting transfection complexes delivery **plasmid** DNA to cells by the adenovirus infectious route without interference from virus gene expression because psoralen-inactivated virus is employed. The PEI-DNA-adenovirus complexes display DNA delivery comparable to more sophositicated DNA virus complexes employing streptavidin/biotin linkage, but require no special reagents and are much easier to prepare

L9 ANSWER 41 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:313410 CAPLUS
DOCUMENT NUMBER: 126:342085
TITLE: What's going on in vaccine technology?
AUTHOR(S): Russo, Silvia; Turin, Lauretta; Zanella, Antonio; Ponti, Wilma; Poli, Giorgio
CORPORATE SOURCE: Institute of Microbiology and Immunology, Faculty of Veterinary Medicine, University of Milan, Milan, 10 I-20133, Italy
SOURCE: Medicinal Research Reviews (1997), 17(3), 277-301
CODEN: MRREDD; ISSN: 0198-6325
PUBLISHER: Wiley
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review with 165 refs. discussing expectations of vaccine efficacy, subunit vaccines, microencapsulation and sustained release of antigens, ISCOMs, virus-like **particles**, homologous vs. heterologous live **vector** ***carriers*** of epitopes, neg. immunol. markers and their value in zootechnics and trade, gene therapy and nucleic acid vaccines, and bovine herpesvirus-1 as a model of vaccine application.

REFERENCE COUNT: 165 THERE ARE 165 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 42 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:493517 CAPLUS
DOCUMENT NUMBER: 119:93517
TITLE: Hybrid protein with Plasmodium CS protein sequence and hepatitis B surface antigen sequence, and use for vaccine against malaria
INVENTOR(S): De Wilde, Michel; Cohen, Joseph
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9310152	A1	19930527	WO 1992-EP2591		19921111
W: AU, CA, JP, KR, US					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE					
AU 9229278	A1	19930615	AU 1992-29278		19921111
EP 614465	A1	19940914	EP 1992-923486		19921111
EP 614465	B1	19990317			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE					
JP 07501213	T2	19950209	JP 1992-508957		19921111
AT 177755	E	19990415	AT 1992-923486		19921111
ES 2129461	T3	19990616	ES 1992-923486		19921111
CA 2123612	C	20020625	CA 1992-2123612		19921111
ZA 9208770	A	19940513	ZA 1992-8770		19921113
US 5928902	A	19990727	US 1996-760797		19961204
AU 9714717	A1	19970612	AU 1997-14717		19970214
AU 712409	B2	19991104			
US 6169171	B1	20010102	US 1997-932929		19970918
HK 1012405	A1	20000505	HK 1998-113572		19981216
PRIORITY APPLN. INFO.:			GB 1991-24390	A	19911116
			US 1992-842694	A	19920227
			WO 1992-EP2591	A	19921111
			US 1995-442612	B1	19950517
			US 1996-663371	B1	19960613

ABSTRACT:
Hybrid proteins (RTS and RTS*) are disclosed which include a portion of the CS protein of P. falciparum and of the surface antigen of hepatitis B virus (HBsAg). The RTS hybrid consists of (1) a Met residue derived from the Saccharomyces cerevisiae TDH3 gene sequence; (2) a Met-Ala-Pro sequence; (3) a P. falciparum CS protein fragment; (4) an Arg residue; (5) a carboxyl-terminal tetrapeptide sequence (Pro-Val-Thr-Asn) of hepatitis B pre-S2 protein; and (6) hepatitis B S-protein sequence. Also disclosed is a mixed multimeric lipoprotein particle containing the hybrid protein and HBsAg. The hybrid proteins and particles are useful for anti-malaria vaccines. Expression cassette construction is described, and amino acid sequences (and corresponding nucleotide sequences) are included. (RTS,S) lipoprotein **particles** induced, both in mice and monkeys, a high antibody response directed against the repeat and nonrepeat CS epitopes and against the S protein of the HBsAg ***carrier.*** The antibodies elicited in the 2 animal species effectively prevented invasion of cultured human hepatoma cells by P. falciparum sporozoites.

L9 ANSWER 43 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	1985:466049 CAPLUS
DOCUMENT NUMBER:	103:66049
TITLE:	Cloning of the structural gene for hepatitis B virus surface antigen into a yeast **vector**
AUTHOR(S):	Kim, K. T.; Song, K. B.; Choi, Y. C.; Rhee, S. K.; Han, M. H.
CORPORATE SOURCE:	Genet. Eng. Res. Cent., KAIST, Seoul, S. Korea
SOURCE:	Han'guk Saenghwa Hakhoechi (1985), 18(2), 122-8 CODEN: KBCJAK; ISSN: 0368-4881
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:
The structural gene of hepatitis B virus surface antigen (HBsAg) was cloned into a shuttle **vector** pAAR 6 which is capable of autonomous replication and selection in both the yeast Saccharomyces cerevisiae and Escherichia coli. This expression **vector** employs the 5'-flanking region of the ADC I gene as a promoter for transcription of viral surface antigen-coding sequences. After transformation of the recombinant ***plasmid*** into yeast strains such as SHY 3, YNN 27, D 13, ATCC 38517 and

ATCC 42677, expression of HBsAg gene in the host cells was observed The protein synthesized in yeast cells was similar in size, d., and shape to the 22 nm ***particles*** isolated from the plasma of human hepatitis **carriers**
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L9 ANSWER 44 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:417501 CAPLUS
DOCUMENT NUMBER: 99:17501
TITLE: Secretion of the hepatitis B virus surface antigen from mouse cells using an extrachromosomal eucaryotic **vector**
AUTHOR(S): Stenlund, Arne; Lamy, Didier; Moreno-Lopez, Jorge; Ahola, Harri; Pettersson, Ulf; Tiollais, Pierre
CORPORATE SOURCE: Biomed. Cent., Uppsala Univ., Uppsala, S-751 23, Swed.
SOURCE: EMBO Journal (1983), 2(5), 669-73
CODEN: EMJODG; ISSN: 0261-4189
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Recombinant DNA mols. which contained a subgenomic fragment of the hepatitis B virus (HBV) genome, the pML2 **vector**, and the bovine papillomavirus type 1 genome were constructed. The HBV fragment includes the entire transcription unit for the hepatitis B surface antigen (HBsAg). After propagation in Escherichia coli, the recombinant **plasmids** were cleaved with endonucleases SalI and PvuI to eliminate most of the bacterial sequences before transfection of mouse C127 cells. Foci were observed 10-14 days after transfection. Cells from selected foci were cloned, and the supernatants were assayed for the presence of HBsAg. Most of the clones tested secreted HBsAg particles into the growth medium. These **particles** appear to be similar to the 22-nm **particles** present in the serum of HBV chronic ***carriers.*** SDS-polyacrylamide gel electrophoresis revealed that the particles contained 2 polypeptides, representing the glycosylated and unglycosylated forms of the HBsAg major polypeptide. An anal. of DNA from the transformed clones revealed that they contain multiple extrachromosomal copies of the recombinant, which, however, were rearranged.

L9 ANSWER 45 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:192706 CAPLUS
DOCUMENT NUMBER: 98:192706
TITLE: A simian virus recombinant that directs the synthesis of hepatitis B surface antigen
INVENTOR(S): Hamer, Dean H.; Gerin, John
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: U. S. Pat. Appl., 16 pp. Avail. NTIS Order No. PAT-APPL-6-304 571
CODEN: XAXXAV
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 304571	A0	19830318	US 1981-304571	19810922
US 4442205	A	19840410		
PRIORITY APPLN. INFO.:			US 1981-304571	19810922

ABSTRACT:
The title virus contains .apprx.70% of the simian virus 40 (SV40) late gene region and 40% (1350 base pairs) of the hepatitis B virus genome (HBV) and is prepared by 1st amplifying the HBV genome by cloning in Escherichia coli ***plasmids.*** Dane **particles** containing the 3200-base-pair (bp) circular HBV genome were isolated from HBV-**carrier** sera and digested

with endonuclease BamHI. The fragments were ligated to BamHI-cleaved ***plasmid*** pBR322 and cloned in E. coli. The HBV surface antigen-specifying region was separated and ligated to a BamHI-cleaved pBR322-SV40 ***vector*** **plasmid** and cloned in E. coli. The SV40 ***vector*** was double-digested with BamHI and EcoRI and cloned into pBR322. Digestion of the pBR322-SV40-HBV recombinant **plasmid** with HaeII gave a homogeneous preparation of 4950-bp SV-HBV recombinant mols. These mols. were then packaged into SV40 coats and propagated as virions by coinfection of monkey kidney cells with a mutant SV40 virus as helper. Tissue culture cells infected with these recombinant viruses produce a hepatitis B surface antigen which is homogeneous and has the same phys. properties, antigenic composition, and constituent polypeptides as those found in sera of hepatitis B patients. The antigen produced can be used as a standard antigen reagent for biol. studies or for vaccine production

L9 ANSWER 46 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1983:66425 CAPLUS
DOCUMENT NUMBER: 98:66425
TITLE: Expression of hepatitis B virus surface antigen gene in cultured cells by using recombinant **plasmid vectors**
AUTHOR(S): Siddiqui, Aleem
CORPORATE SOURCE: Sch. Med., Univ. Colorado, Denver, CO, 80262, USA
SOURCE: Molecular and Cellular Biology (1983), 3(1), 143-6
CODEN: MCEBD4; ISSN: 0270-7306
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:

The expression of the gene coding for hepatitis B surface antigen was studied with a new host-**vector** system. A subgenomic fragment of cloned hepatitis B viral DNA was inserted into the **plasmid vector** pSV010. Transfection of COS cells with the recombinant **plasmid** ***vector*** containing hepatitis sequences led to the synthesis of hepatitis B surface antigen, which was released into the culture medium in the form of 22-nm **particles** similar to those found in the sera of hepatitis ***carriers.***

L9 ANSWER 35 OF 46 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:405107 CAPLUS
DOCUMENT NUMBER: 131:63429
TITLE: Needle-free injection of formulated nucleic acid molecules for gene therapy in mammals
INVENTOR(S): Barry, Michael; Mumper, Russ; Smith, Lou
PATENT ASSIGNEE(S): Genemedicine, Inc., USA; Baylor College of Medicine
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9931262	A2	19990624	WO 1998-US26823		19981216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2315256	AA	19990624	CA 1998-2315256		19981216
AU 9919229	A1	19990705	AU 1999-19229		19981216
EP 1038016	A2	20000927	EP 1998-964020		19981216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2003528024	T2	20030924	JP 2000-539160		19981216
PRIORITY APPLN. INFO.:			US 1997-69754P	P	19971216
			WO 1998-US26823	W	19981216

ABSTRACT:
A novel method is provided for delivering nucleic acid mols. through and/or to the skin of mammals by needle-free injection involving the incorporation of formulated nucleic acid mols. with devices for injecting the mols. by air, fluid and/or mech. pressure. Disclosed are compns. and methods for enhancing the administration to and uptake of nucleic acids in a mammal. The methods disclosed provide an increased immune response by allowing the uptake of formulated nucleic acid mols. by a wide variety of cell types simultaneously. Also disclosed are examples which demonstrate that the combination of formulated nucleic acid mols. and needle-free injection methods results in immune responses which are superior to those obtained by conventional means of delivery. Methods for delivery, as well as methods for formulating nucleic acid mols. with various compds., such as cationic complexing agents, polymeric and non-polymeric formulations, protective, interactive, non-condensing systems are also disclosed.

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not a particle